21978

National Library of Canada | Bibliothèque nationale du Canada

CANADIAN THESES ON MICROFICHE | THÈSES CANADIENNES SUR MICROFICHE

NAME OF AUTHOR/*NOM DE L'AUTEUR* G. A. SPANGLER

TITLE OF THESIS/*TITRE DE LA THÈSE* ARISTOTLE ON CHANGE: THE IMPORTANCE OF BEING SOMETHING

UNIVERSITY/*UNIVERSITÉ* UNIVERSITY OF ALBERTA

DEGREE FOR WHICH THESIS WAS PRESENTED/ *GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE* PHD

YEAR THIS DEGREE CONFERRED/*ANNÉE D'OBTENTION DE CE DEGRÉ* 1974

NAME OF SUPERVISOR/*NOM DU DIRECTEUR DE THÈSE* RICHARD N. BOSLEY

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

DATED/*DATÉ* 4 July 1974 SIGNED/*SIGNÉ* G. A. Spangler

PERMANENT ADDRESS/*RÉSIDENCE FIXE* Department of Philosophy
California State Univ
Long Beach, Ca.

NL-91 (11-78)

THE UNIVERSITY OF ALBERTA

ARISTOTLE ON CHANGE:
THE IMPORTANCE OF BEING SOMETHING

by

© G. A. SPANGLER

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF PHILOSOPHY

EDMONTON, ALBERTA

FALL, 1974

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled ARISTOTLE ON CHANGE: THE IMPORTANCE OF BEING SOMETHING, submitted by G. A. SPANGLER in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

Richard N Bosley
Supervisor

A. E. Kuhn

[illegible]

Date June 10, 1974 John King-Farlow

Now for those who wish to get rid of perplexities it is a good plan to go into them thoroughly; for the subsequent certainty is a release from the previous perplexities, and release is impossible when we do not know the knot.

Aristotle, Metaphysics III, 1.

ABSTRACT

It is Aristotle's view, and the view of several modern philosophers, that individuals are necessarily of certain sorts or kinds, which sorts or kinds are Aristotle's "second substances:" everything is something. The implications of this belief are spelled out, particularly as they concern reference to individuals and problems about identity and individuation. A distinction is drawn between, on the one hand, disclosing or making clear what one is speaking about and, on the other, saying, of the thing about which one is speaking, what it is. Aristotle's notions of form and essence are examined with respect to the question, "What is it?," as well as his account of what it is to say something.

Against this background, Aristotle's examination of change is spelled out and shown to be grossly defective. A detailed examination of Aristotle's critique, in his Physics, of Eleatic Monism is put forth, and it is argued that he adopts certain crucial presuppositions made by Parmenides regarding change. Included also is a critical account of the notion of opposition in Aristotle's writings with respect to the claim that opposites are among the principles of change.

PREFACE

In reading a philosopher's work one typically finds a statement of a problem and a solution to it, or, at least, "a fly in a fly bottle" and some suggestions about how it might be led to escape. Too often, however, the fly is not told how it got trapped, so one fears that its escape will be temporary and that it will soon be imprisoned again. Sometimes it seems that the escape is really just an illusion, like letting a caged animal out of his cell into a large paddock: there he is not surrounded by bars, but he is imprisoned all the same. Aristotle, it seems to me, is often in just this predicament. In tackling a problem he inherits from another philosopher, he "solves" it only at the expense of constructing a theory which then acts as a barrier between his good intentions, on the one side, and good sense, on the other.

This is not to say that all of Aristotle's work is flawed in just this way. Sometimes he accepts his predecessor's assumptions just to show that even they lead to aporia. But when he is doing what I think he would have called his most serious critical work, attacking problems in a dialectical way and trying to replace incorrect views with new ones, he falls victim to the error that most seriously mars his work. He accepts too much of the theories he hopes to replace: he accepts their presuppositions, and so the theoretical edifices he constructs are on shaky foundations.

The main point of this essay, however, is not to prove that theories have no place in philosophy. I do hope, however, to show that Aristotle's work suffers from a systematic defect and that by examining Aristotle's theory of change I can give support to my view that philosophy is not a place for theories at all.

The bulk of this essay, then, will consist of a diagnosis of the difficulties into which he is led by adopting a certain view of change. I will show that his theory cannot explain what it is intended to explain, and that this is so largely because he takes on some assumptions from Plato and Parmenides which are alive to this day. The first, and most important of these, I elevate to the status of a thesis, and name. It is obviously Platonic in heritage, and my examination of it will be, to a large extent, concerned with its place in modern philosophy. The other is Eleatic and comes to light in Aristotle's criticism of Parmenides. It is not so important and ubiquitous but, as Aristotle says, it offers scope for philosophy.

The first section of this essay will be concerned with the thesis just mentioned; in this section I lay out the foundation for what is to follow. This section is largely concerned with Aristotle's notion of substance. In the next section I am concerned with universals. Finally, there will be an account of Aristotle's theory of change, criticized in terms of the framework spelled out in the preceding sections.

One can see from Aristotle's Physics I that there was a stock problem about the phenomenon of change in the realm of things investigated by the natural philosopher. This problem must have been the sort of issue a student in the Lyceum would have been expected to

discourse about at great length, and also, in spite of its commonplace nature, must have made or broken budding philosophers in the way that certain biblical passages provided grist for the intellectual mills of medieval theologians. I am thinking, of course, of the so-called Parmenidean principle that "nothing comes from nothing" and its corollary that "what is cannot come from what is." Together they were thought to entail the startling conclusion that there can be no change, that nothing can come to be or be destroyed. In the face of these views, as Aristotle says, there is no room for natural philosophy at all. So it is not odd that the phusikos should have something to say about them, even if they lay outside the province of his speculation. Aristotle's concern with monism in the Physics is by no means peripheral to his main task; it is simply mistaken, in spite of what he says, to think that Aristotle just assumes that there is change.

A word is in order here about why I have chosen the problems in Aristotle's work that I have, though a perfectly candid explanation would be that they are the ones that are of interest to me. I hope that this essay will show that my interest is neither gratuitous nor eccentric. The problems are all concerned with the matter/form distinction, with Aristotle's Categories doctrine about what can be said to be, and all have something to do with modern concerns about problems of reference and predication. There may be a great deal more in the current literature than is dreamed of in Aristotle's philosophy, but anyone who has not been stirred by some of the issues dealt with here is a sound sleeper indeed.

TABLE OF CONTENTS

Chapter		Page
I.	SUBSTANCES	
	A. The M-thesis	1
	B. Identity and Resemblance	12
	C. A Critique of the M-thesis	22
II.	UNIVERSALS AND OPPOSITES	
	A. Opposition	42
	B. Saying Something	53
	C. Contraries and o-Expressions	67
III.	CHANGE	
	A. Aristotle's Critique of Parmenides	80
	B. Aristotle's Account of Change	103
	C. Criticism of Aristotle's Account	140
	LIST OF WORKS CITED	152

I

SUBSTANCES

The M-thesis

In recent years there has been put forth a view, not always on Aristotle's behalf, but always recognizably Aristotelian, which ultimately has to do with what can be said to be. While it concerns many important issues, I shall be exploring here its bearing upon Aristotle's effort to solve what historians of philosophy have called "the problem of change." Aristotle's attempt to solve this problem, whose roots are embedded in Eleatic monism, consisted in large part in saying what there must be in order for there to be change. But he was constrained in doing so not merely by the need to "save the appearance" of change; he also had to erect his theory on a platform I call the M-thesis.* There are many planks in this platform, some of which are as ancient as Plato and others of which are as novel as a recent journal article. In spite of its age, though, the platform is not as roughly hewn as one might expect. I will show that it is, at least, continuous.

Initially, I want to give a general characterization of the M-thesis by contrasting it with other views, notably those of Strawson, Russell, Peirce, and Hume. While this sketch will be

---

*After Michael Durrant, Senior Lecturer in Philosophy, University College, Cardiff, Wales, from whom I learned of it.

largely picturesque, I think it will not be misleading and will give me an opportunity to shake free from details and problems which are not of interest to me here. I want at first to paint a philosophical still life; later on, I will fill in some details, and the thesis will take on a more fluid appearance. In the end, I hope it will be stated clearly enough to be understood, but not so clearly as to be seen through easily. Like much of what is foundational in philosophy, the M-thesis consists both of claims which its proponents quite consciously make, and assumptions which are only dimly thought out. In initially stating the thesis, which I have promised will be a sketch, I do not intend to work in black and white.

In his book, Individuals, P. F. Strawson asks what makes it possible for us to identify the particular things in the world in the way that we do.* Specifically, he wants to know how it is that we can succeed in identifying particulars in a speaker-hearer situation. He is thus led to speak of a "common conceptual framework" which includes a "unified framework of knowledge of particulars, in which we ourselves and, usually, our immediate surroundings have their place, and of which each element is uniquely related to every other and hence to ourselves and our surroundings."** About this framework Strawson makes two claims:

(a) ". . . this framework of knowledge supplies a uniquely efficient means of adding identified particulars to our stock."

---

*P. F. Strawson, Individuals: An Essay in Descriptive Metaphysics (London: Methuen and Co., 1959), ch. I.

**Ibid., p. 24.

(b) "This framework we use for this purpose: not just occasionally and adventitiously, but always and essentially."* The upshot of these claims is that things are identifiable and, therefore, "capable of being the subject matter of discourse in a common language," because we have at our disposal this spatio-temporal framework.

Proponents of the M-thesis argue, to the contrary, that Strawson overlooks the importance of what Aristotle called "second substance," for Strawson implies that one can identify something (a "particular") without identifying it as an individual of a certain sort, i.e., as a member of a species or genus, but simply as an individual with certain (spatio-temporal) properties. Stuart Hampshire, for example, has argued that it is crucial to distinguish

> (1) 'That is Socrates' (2) 'That is a dagger' (3) 'It is yellow'. In (1) and (2) I am not describing; I am identifying; I am answering the question 'What, or Who, is that?'. In (3) I am describing, not identifying, whatever is referred to by 'that'. Aristotelian logic stressed the analogy between (1) and (2); contemporary empiricists, following Russell's logic, have so closely assimilated (2) and (3) as scarcely to mark any difference in function between them. The blanket term 'descriptive expression' is now often applied without distinction to '. . . is a dagger' and '. . . is yellow', as if Aristotle had no good reason for distinguishing Primary and Secondary Substance on the one hand from Quality and Relation on the other.**

Something of this sort of disagreement comes out by contrasting the roles ostensive definitions (and ostension, generally)

---

*Ibid., p. 24.

**Stuart Hampshire, "Identification and Existence," Contemporary British Philosophy (New York: The MacMillan Co., 1956), p. 199.

are thought to play in accounting for the subject matter of ordinary discourse. The M-theorist argues that it is no accident that demonstratives take a completion in the form of a noun or noun phrase. Thus, if someone should say, "Get me that," pointing to a book, his remark must be understood as elliptical for "Get me that book," or some such remark in which the demonstrative is completed by a noun or noun phrase, in order for the speaker successfully to communicate to the hearer what he wants. This is diametrically opposed to Peirce's belief that indexical signs are not used in place of nouns, but rather that it is the other way around: ". . . for an indexical sign indicates its object in the most direct way possible and does not rely on any descriptive element, as does a noun."*

The M-theorist is here also opposed to the Russellian view that demonstrative pronouns are logically proper names, and to logical atomism generally. For the more or less explicit point of such theses is that reference to things and, ultimately, an answer to the question, "What is there?," depends upon indexicals and ostension. It is held to be a contingent matter of convention that items indexed are classified in the way that they are, and often the publicity of such items is a tenuous matter. For Aristotle, too, it is a matter of convention that we use the "names" that we do, "but what these are in the first place signs of--affections in the soul--are the same for all; and what these affections are likenesses of--actual things--are also the

---

*Richard Gale, "Indexical Signs, Egocentric Particulars, and Token-Reflexive Words," Encyclopedia of Philosophy, IV, ed. Paul Edwards (New York: The Macmillan Co., and The Free Press, 1967), pp. 151-55.

same."* For Aristotle, there was no question of the world's publicity. While, for Strawson, "it is a necessary truth that any new particular of which we learn is somehow identifyingly connected with the framework,"** the M-thesis urges that the identity of a particular is dependent upon its sort or classification:

> "A condition of successful reference is that we be able to indicate in some manner what that to which we are referring is. . . . a condition of successful reference is that we have at our command some form of the expression "that such-and-such" by means of which we may identify a referent."***

For example, on Strawson's view, the identification of a particular and, hence, its identity, ultimately depends on the truth of a claim of the following sort: "It is the particular located at place P at time T." According to the M-thesis, as one of its advocates claims, "it is no merely contingent matter that individuals are of certain kinds or sorts, viz., are individuals under some classification."**** To identify a

---

*Aristotle, De Interpretatione, 16a5-8. All references to Aristotle's works are to The Works of Aristotle, translated under the editorship of W. D. Ross (Oxford: The Clarendon Press, 1928) with the exception of the following volumes with translator notes and commentaries from the Clarendon Aristotle Series: Aristotle's Categories and De Interpretatione, trans. J. L. Ackrill (Oxford: The Clarendon Press, 1963); Aristotle's De Anima: Books II and III, trans. D. W. Hamlyn (Oxford: The Clarendon Press, 1968); Aristotle's Metaphysics: Books Γ, Δ, and E, trans. Christopher Kirwan (Oxford: The Clarendon Press, 1971); Aristotle's Physics: Books I and II, trans. W. Charlton (Oxford: The Clarendon Press, 1970).

**Strawson, p. 24.

***A. Kosman, "Aristotle's First Predicament," Review of Metaphysics, 20 (March, 1967), pp. 493-494.

****Michael Durrant, "Numerical Identity," Mind, LXXXII, No. 325, (1973), pp. 95-103. See also G. E. M. Anscombe and Peter T. Geach, Three Philosophers (Oxford: Basil Blackwell, 1961), p. 8.

particular it is necessary to identify it as a particular Ø, where "Ø" is replacable by some suitable classificatory expression. A suitable expression is one whose utterance would serve to answer the Aristotelian "What is it?" question, viz., one which gives the ousia of the thing. And since, according to Aristotle, there is no such class as the class of things that exist, such expressions as "existent thing," "particular," "object," and the like are pseudo-classificatory expressions. Hence, an attempt to identify an individual by means of a description of the sort Strawson prescribes, "individual at place P at time T," is unsatisfactory.

On this issue, the doctrine whose laundry the M-thesis takes in to make a living is set forth quite clearly in a recent book by Anthony Quinton.* In the section entitled "Individuation," he says that

> Another kind of necessarily individuating property is position in space and time. If we are confronted by two distinct things between which we can find no strictly qualitative difference of length or weight or color we can always distinguish them by reference to their respective positions. What proves this is the familiar but highly important metaphysical truth that no two things can be in the same place at the same time . . . . A complete, that is to say spatial and temporal, position is either monogamous or virginal, ontologically speaking. So to state the position of a thing is to predicate a conjunction of properties of it and is necessarily to individuate it (p. 17).

The clear implication of these remarks is that a conjunction of the spatial and temporal properties of a thing is sufficient to individuate it, to account for its being the individual that it is. A less clear implication is that it is a contingent matter that it is the

---

*Anthony Quinton, The Nature of Things (London: Routledge & Kegan Paul, 1973).

sort or kind of individual that it is, e.g. a horse or a ring. The backbone of these implications is the time-honored philosophical maxim that no two things can occupy the same place at the same time.*

Against this, the M-theorist can object that the maxim to which Quinton appeals is a simple falsehood under one interpretation, and that it concedes the bone of contention on another. That is, on the interpretation which saves it from scores of counter-examples, the notion of "kinds" or "sorts" (second substance) has to be introduced into the statement of the maxim.

The maxim is obviously false if by "place" one means, e.g. Berlin; for it is then a matter of history that two things can occupy Berlin at the same time. But this, of course, is not how "place" is to be understood. The maxim will have to be reformulated to spare it from such a sophistical refutation.

If we let "A" represent the proper name of an individual, then we can state the maxim as follows: no two things can occupy the place which A occupies at a given time. But now the maxim runs afoul of the objection Anscombe has raised against Locke's idea that there are no "nominal essences" of individuals:

> This presupposes that, having grasped the assignment of the proper name 'A', you can know when to use it again, without its already being determined whether 'A' is the proper name of, say, a man, or a cassowary: as if there were such a thing as <u>being the same</u> without being the <u>same such-and-such</u>. This is clearly false.**

In any case, it is easy to find counter-examples to the

---

*See Aristotle's <u>De Anima</u> II, 7, 418b15.

**Anscombe, p. 8.

maxim when it is stated in this way. Suppose, e.g., that a golden wedding ring (call it "A") occupies place P at time T. Then it will be true to say that two things occupy the same place at the same time, viz. the place occupied by A, at the time, T. A wedding ring occupies that place as well as a piece of gold. Likewise, the road to Athens occupies the same place as the road to Thebes, and the President of the United States occupies the same place as the Commander-in-Chief of the U. S. Armed Forces. Hence, the maxim requires a further emendation: no two things of the same kind can occupy the same place at the same time. But, reformulated in this way, the maxim contains an ineliminable reference to the idea of kinds or sorts, and so it is granted to the M-theorist that there can be no individuation of particulars except as particulars of a certain sort, i.e. that spatio-temporal properties are not sufficient for individuation.*

So far, the M-thesis has been concerned with reference, identification, and the individuation of things--all, to some extent, technical notions. Still, a picture emerges which is not too difficult to conceive; it is a picture of a person looking at things. The things change, but the observer is able to pick out some of the things and discuss them with other observers. The observer is mainly concerned with discovering, about the things he sees, what they are.

The Aristotelian seems mainly interested in that question, the "What is it?" question. His interest in the question, however, seems not to depend on a prior interest in the common activities that

---

*After working this argument out, I found one like it in David Wiggins book, Identity and Spatio-Temporal Continuity (Oxford: Basil Blackwell, 1971), p. 72, n. 44.

ordinarily give rise to such a question. He seems not to be interested in, say, someone's repairing something and then being asked what the tool is that is being used. It is rather as if our own activities apart from saying or asking what it is are set aside; we view the world as though it were full of curios already conveniently classified into species and genera. Given so much, we then ask ourselves, "And what is that?"

I have spelled out the M-thesis in connection with the plain man's question, "What is that?," and have suggested that, where it is not elliptical for another question, the M-theorist must rule it out of order as lacking both sense and reference. He will then try to capture in general what eludes him in the particular, asking not "What is that?," but "What is man?"

There is an interesting example of this sort of pronoun displacement in Aristotle's Metaphysics VII, 4, 1029b14 ff. There Aristotle is arguing for the rule that the what-it-is-to-be (τὸ τὶ ἦν εἶναι) of a thing is that which is said of it per se, with a certain exception. Elsewhere he says that an account of the τὸ τί ἦν εἶναι is a definition (Met. VII, 4, 1017b23, 1043a22, 1029b22), but in VII, 4, he says that "to be you is not to be musical" where "to be you" surely means "to be a man."

As Durrant has noted,

> From the fact that the phrases τὸ τί ἦν εἶναι and τὸ σοὶ εἶναι occur in consecutive sentences and Aristotle moves straight from one to the other without any apology or comment, one can conclude that, although in other places he keeps the two notions distinct, here at least he equates them or at least regards them as alternatives . . . . On this account 'the-to-be-you' is the specification of a second substance; hence as Aristotle makes no clear distinction here

> between τὸ τί ἦν εἶναι and τὸ εἶναι, nor considers it necessary to explain the move, on this account τὸ τί ἦν εἶναι will be a second substance too.*

Here the pronoun "you" is displaced by a noun "man," the latter being a "second substance" word, which is then displaced by that cumbersome phrase typically translated as "essence." This passage shows how quickly Aristotle can move from the particular to the general, in spite of the fact that he is sometimes thought of, in contrast to Plato, as having empiricist tendencies!

What is important about this passage is that it shows how a question about a particular person, "What is it to be you?," can become a question about a species, "What is it to be a man?," such that what at first seemed to be a request for a description turns out to be a request for a definition. And a definition, i. e. an account of the essence (Met. 1017b23, 1043a22, 1029b22), as Durrant notes,** cannot state the qualities or characteristics of a thing. And this fits in well with the M-thesis, because it forbids one from understanding the question, "What is it to be you?," in its own right as a question about the bearer of a proper name; the M-thesis takes this question as elliptical for "What is it to be you, viz. a man?," and not this man. The M-thesis pulls one away from the ordinary situation in which one points and asks "What's that?," as if we can ask only "What is a man?" or "What is that piece of furniture?" Thus it is odd to find Aristotle claiming in the Posterior Analytics that "when we have ascertained the

---

*Michael Durrant, Theology and Intelligibility (London: Routledge and Kegan Paul, 1973), p. 54.

**Ibid., p. 54.

things existence, we enquire as to its nature, asking, for instance, 'what, then, is God?' or 'what is man?'." It is not odd that the examples are as they are, for they are of the sort just indicated, but rather that one is first supposed to determine whether a thing exists, and then to ask what it is. How can one show that something exists if one does not know what it is?

In asking whether something exists one is not in the position of having to find something of a certain sort and then having to look to see whether it has the property, existence. One rather finds out whether there is something of a certain sort. So if to be a tiger shark were to be a cross between a tiger and a shark, and someone wanted to know whether there exists a tiger shark, he could discover whether anything is a cross between a tiger and a shark. This would be an Aristotelian discovery procedure, because he does not take existence to be what or how anything is; rather, for him, to be is always to be something or other. Thus in the Metaphysics Aristotle says that "the sciences omit the question whether the genus with which they deal exists or does not exist, because it belongs to the same line of thought to show what it is and that it is."*

In the Physics, Aristotle does not prove that there are changing things, but assumes or takes it for granted that there are. And there, the "What is it?" question is not raised about some individual case of change, but is rather asked about change in general. When one knows fully what it is, one will then know what it is that is said to exist. In this way are the two questions related.

---

*Metaphysics (hereafter "Met.") VI, 1, 1025b15-19.

Identity and Resemblance

Now there is a further point to be considered. Since the things in the world are things which change, not only is it important to say how one can, as Plato said, "separate" them, i.e., identify them; it is also important to say how they can be reidentified. The modern empiricist basis for identification and reidentification consists in resemblance:

> When we have found a resemblance among several objects, that often occur to us, we apply the same name to all of them, whatever differences we may observe in the degrees of their quantity and quality, and whatever other differences may appear among them.*

Here, the foundation for what is often called "specific identity" is mere resemblance, a support for those who abhor teleology in nature, replacing it with natural selection and fortuitous similarities. According to the M-thesis specific identity is made possible not by resemblance, but by natural kinds. It is no accident, then, that a modern defender of this view should also agree that we do not need to reject

> the apparent teleology in the world, particularly in the world of living things, as a delusion; I think it is extreme folly to do that, and only fashion can make people account for the ostensible teleology by the idea that of many kinds of things just those survived which chanced to be viable. There can be no origin of species, as opposed to an Empedoclean chaos of varied monstrosities, unless creatures pretty much reproduce after their own kind; the elaborate and ostensibly teleological mechanism of this reproduction logically cannot be explained as a product of evolution by natural selection from among chance variations, for unless the mechanism is presupposed there cannot be any evolution.**

---

*David Hume, A Treatise of Human Nature, edited by L. A. Selby-Bigge (Oxford, 1888), reprinted 1946, p. 20.

**P. T. Geach, "An Irrelevance of Omnipotence," Philosophy, 48, No. 186 (1973), p. 330.

The doctrine of natural kinds squares well with the rejection of the idea that one can know what there is without knowing what kinds of things there are, and also with the view that, if two things are said to be the same, then, for this to be an intelligible claim, there must be an answer to the question, "The same what?".*

V. C. Chappell uses a version of D to disarm an argument about identity and change, harking back to Aristotle for support from a distinction between numerical and specific identity. The argument is as follows:

> To change is to become different. After it has been heated, a piece of wax is different from what it was before. And if the wax is different it follows that it is not the same: 'different' means 'not the same'. Hence, to say that the wax is the same is self-contradictory; to change and yet remain the same thing is, as Parmenides expressed it, 'both to be and not be the same and not the same'.**

This conundrum, and others like it, are meant to be solved by the application of D. Its connection with the M-thesis proper may be seen from the following parallel:

> A. If someone refers to something, saying "this" or some other demonstrative pronoun ("d"), then, for the remark to be intelligible, there must be an answer to the question, "d what?"
>
> B. If someone says that two things are the same, then, for the remark to be intelligible, there must

---

*Following David Wiggins, Identity and Spatio-Temporal Continuity, p. 1, I shall call this thesis "D"; hereafter, I will consider it part of what I am calling the M-thesis. See also P. T. Geach, Reference and Generality: An Examination of Some Medieval and Modern Theories, emended ed. (Ithaca, New York: Cornell University Press, 1962), pp. 39-40.

**V. C. Chappell, "Sameness and Change," Philosophical Review, LXIX (Jan. 1960), p. 352.

be an answer to the question, "The same what?"*

Both thesis D and thesis M have ancient roots, yet they continue to thrive, as in the following remark from A. J. Ayer: "My words must do more than merely point at my experiences: if a word applies to something, it must apply to it not merely as being this but as being something of a certain sort."** The idea that words apply to things is no part of the M-thesis; but the remark is made in the appropriate spirit all the same, because Ayer is concerned with the publicity of language. There must be some way to tell what it is a person is talking about, and pointing alone will not do. In this way, there is a streak of skepticism in the wake of the M-thesis. Just as Aristotle seldom asks why it is that questions about change arise in ordinary affairs, so he and more recent philosophers seldom ask what gives rise to "What?" questions. It is as if men were born thinking: no entity without identity.

From a certain perspective, then, the M-thesis will appear mysterious and alien. From another, it appears vague. But the sketch given above was meant to be rough, so I will now go on to fill in some details.

Returning to the argument about sameness and change which Chappell considers, it will be useful to see how he thinks that D can lead the way out from under a bad, though ancient, argument.

---

*In "Stuff and Things," Proceedings of the Aristotelian Society, Vol. 71 (1970), pp. 61-76, Chappell suggests yet another parallel: "We may grant that the question 'One what?' needs answering for anything said to be one . . . ." See Kosman, "Aristotle's First Predicament," p. 496, on "the same."

**The Problem of Knowledge (London: Macmillan and Co., 1956), p. 63.

This examination will lead to a more detailed look at the M-thesis itself, and in turn to some foundation for a criticism of Aristotle's account of change.

The argument which Chappell stated contains two essential steps. He notes that

> it is claimed (1) that 'x has changed' entails 'x is not the same', and (2) that the 'x is not the same' which is entailed by 'x has changed' is the denial of the 'x is the same' which is used to express self-identity, such that the compound statement 'x is not the same (has changed) and is the same (self-identical)' is a contradiction. *

He thinks that this argument is shown to be unsound by distinguishing senses of "same":

> for statements of the form 'x is Ø and is not Ø' are contradictions only in case the two 'Ø's' (a) are being used in the same sense, or, failing this, (b) are used such that 'x is Ø' in one of the two senses of 'Ø' entails 'x is Ø' in the other of the two senses of 'Ø'. **

Aristotle himself was well aware of the dangers of deception in arguments that "depend upon ambiguity of words and of phrases," claiming that the deception results from our "being unable to divide the ambiguous term (for some terms it is not easy to divide, e.g., 'unity', 'being', and 'sameness') . . . ."*** In the Topics he says that there are three kinds of sameness, or that the same is said in three ways:

> We generally apply the term numerically or specifically or generically--numerically in cases where there is more than one name but only one thing, e.g., 'doublet' and 'cloak'; specifically, where there is more than one thing, but they present no differences in respect of their species, as one man and another:

---

*Chappell, "Sameness and Change," p. 352.

**Ibid., p. 352.

***Aristotle, de Sophistici Elenchi, VII, 169a23-25.

> for things like this that fall under the same species are said to be 'specifically the same'. Similarly, too, those things are called generically the same which fall under the same genus, such as a horse and a man. *

There seems to be a lacuna here, because nothing is said of things being the same in quality or quantity, etc. So one way of disarming the above argument about change seems closed to Aristotle, viz., the way taken by Chappell. Indeed, one might have wished Aristotle to say that "x has changed" entails "x is not the same," the formula invoked in the argument, is at best misleading. For a thing could change in quality, say, yet remain the same in species. Or, it could change in quantity, yet remain the same in quality. But Aristotle does not here mention qualitative or quantitative sameness.

There is a passage in the Metaphysics which bears upon this point and which may explain why Aristotle says, "Of 'sameness' then, as has been said, three senses are to be distinguished."** In his discussion of relatives in his lexicon, he says that

> . . . the equal and similar and same . . . . are all so called in respect of the one; for things are the same whose substance is one, similar whose quality is one, equal whose quantity is one. ***

While this passage provides a way to explain why Aristotle thinks there are only three kinds of sameness (numerical, specific, and generic), it is odd in several respects. While it is true that things which are the same in quantity can be said to be of equal quantity, it is not true that

---

*Aristotle, Topics, I, 7, 103a6-14.

**de Sophisticus Elenchus, 103b1-2.

***Aristotle, Metaphysics V, 15, 1021a10-12.

things which are the same in quality are said to be of similar quality. If two things are red, for example, they are not of a similar color, but of the same color. Since this is an obvious truth, I think there must be another way to understand Aristotle's point here. Instead of covering cases in which we go from saying that two things are, e.g., red, to saying that they are the same color, perhaps his point is meant to cover a case like the following: I catch two fish, different in species but of the same color and size, and say that they are similar in appearance, and equal in size, but (in spite of their similarity) are not the same. Consider, for example, the difference between saying that two students turned in similar papers and saying that they turned in the same paper. If their papers were similar, then they might well be equally good, on the same topic, and of the same length. We would not say that the students turned in the same paper, or that (really) only one paper had been submitted. They are not, I take it Aristotle would say, the same. For if they were, then they would be either the same in number, in species, or in genus. But, as he puts it in the Metaphysics passage, they are none of these and so are not "one in substance."

Before going on to consider what it might be for things to be one in substance or "the same," there are two preliminary points to be made. First, to say that two things are the same is to say that they are the same in number, species, or genus. Second, things cannot be called the same because they are of one quality or quantity; this is mere similarity, not sameness. It follows from these points that to say something of the form, "x and y are the same," is always to make a claim which is elliptical, and this in two senses:

(a) one is claiming that x and y are the same in number or species or genus;

(b) one is claiming that x and y are the same quantity or quality and, hence, that x and y are not unreservedly the same but either similar or equal.

I take these points to be tantamount to saying that Aristotle is committed to what I have called "D".

Kirwan, however, claims that "whose substance is one" in "things are the same whose substance is one" is ambiguous:

> (1) Since the quality of x and y is one when both are e.g. pale, it ought to be that their substance is one when both are e.g. men, even if not the same man. (2) But if x and y may count as the same even when they are not the same in number, it is not clear why their being e.g. the same in color is not allowed to count as a case of sameness, but only similarity. This suggests that 'one in substance' here means 'one in number'.*

This suggestion squares with Aristotle's claim at Topics I, 7, 103a23, that "it is generally supposed that the term "the same" is most used in a sense agreed on by everyone when applied to what is numerically one." A paradigm of this use of "the same" occurs in the claim that the morning star is the same as the evening star. But, as I have noted, Aristotle allows that things may be called "the same" when they are of one species or genus as well. So "substance," in "things are the same whose substance is one," should not be restricted to mean "primary substance" alone, but rather should be taken in its wider sense: "primary and secondary substance."

In this way, Aristotle's remark is not so much

---

*Kirwan, "Notes," Aristotle's Metaphysics, p. 165.

ambiguous, as Kirwan suggests, but general or broad in scope.

Having said that there are three principal types of sameness, or three ways in which things are said to be the same, Aristotle notes that "it might appear that the sense in which water from the same spring is called 'the same water' is somehow different and unlike the senses mentioned above."* He seems to have a case like the following in mind: yesterday I fetched some water from Stony Spring for us to drink, and you thought it had a pleasant taste. Today I gave you some water that wasn't so good, and you ask whether it is water from the same spring or not. I say that it is the same water. Aristotle says that "such a case as this ought to be ranked in the same class with the things that in one way or another are called 'the same' in view of unity of species" (103a16-18). He then says:

> For all such things seem to be of one family and to resemble one another. For the reason why all water is said to be specifically the same as all other water is because of a certain likeness it bears to it, and the only difference in the case of water drawn from the same spring is this, that the likeness is the more emphatic: that is why we do not distinguish it from the things that in one way or another are called 'the same' in view of unity of species.**

These are striking remarks! For one thing they lay it down that things are called the same in species because they resemble one another. For another, they show that Aristotle's commitment to the claim that there are three kinds of sameness is not a piece of shorthand meant to summarize the results of an examination of cases in which things are said to be the same. He seems to have made the case fit the doctrine

---

*Topics I, 7, 103a14-16.

**Topics I, 7, 103a18-23.

rather than to have made the doctrine fit the case. And it would be wrong, on the strength of his remark here, to replace the doctrine of natural kinds with an Empiricist notion of resemblance: things resemble one another because they are the same in form, not the other way round.

Now if I am asked why I say that this water is the same as the water we had yesterday, I can say that it is from the same spring. This would show that the answer to the "same what?" question, which is admittedly unnatural here, is "the same water." But then the question becomes, "How is one to understand 'the same water'?". One answer involves reference to a certain spring, another to a certain species. That is, I could say that the water is said to be the same water because it came from the same spring as the water we had before. Since the answer to the question, "Which water is this?," would be, "From that spring," its identity in the first place is dependent on its source. So, since to speak of the same water is to reidentify it, it is no wonder that I again make reference to its source. Yet again, it may be that by "the same water" I mean "the same sort of stuff." The question here is, "What sort of stuff is it?". Since I identify it by saying that it is water, I reidentify it by again making reference to the sort of stuff it is. The difficulty with this latter account, though, is one that Aristotle would be keen to point out. It presupposes that I can identify something in the first place by saying that it is "some sort of stuff." But "some sort of stuff" is not an appropriate classificatory expression; it does not provide one with an answer to the question, "What is it?" To put the point schematically, the M-thesis holds that $(\underline{a}=\underline{b}) \rightarrow (f)\ (\underline{a}_f=\underline{b})$, where "$\underline{a}$" and "$\underline{b}$" are

individuals, "f" is a second substance word, and "=" means "is the same as." As Wiggins has argued, representing what I call the M-thesis,

> If a=b, then there must be such a thing as a. In that case there must be something or other which a is. Now, since existence is not a predicate, 'an existent' does not answer the question, 'what is a?' Yet since everything is something, this is a question to which there must be some answer, known or unknown, if indeed there is such a thing as a. But since a substantial or sortal predicate is by definition no more than the sort of predicate which answers this kind of question, there must automatically exist a sortal predicate f which a satisfies and some sortal predicate g which b satisfies, if a and b exist. *

By parity of reasoning, since "sort of stuff" is not a substantial predicate, I do not say what a and b are by saying that they are some sort of stuff. I therefore cannot say (a) "this sort of stuff is the same water as that sort of stuff" unless this is elliptical for (b) "this water is the same water as that water," or some such remark containing sortal expressions. In Aristotle's case of water from the spring, since I cannot use "the same" in a claim like (a), am I then left with a claim like (b)? It seems so from the text and, indeed, it appears that I say, in general, that $a \overset{f}{=} b$ because a resembles b, and in the case at hand, because the resemblance between a and b is emphatic. ** But since Aristotle nowhere reduces the notion of species to that of resemblance between individuals, it is safe to conclude that he is just not facing up to a difficult case. Starting from "all water is specifically the same," he is forced to say that all uses of "the same water" signify

---

*Wiggins, Identity and Spatio-Temporal Continuity, pp. 27-28.

**This implies that "the same" admits of a more and a less, as Aristotle says about opposites.

either specific, generic, or numerical identity. Now it does not follow from the fact that all men are the same in species that all uses of "the same man" indicate specific identity: the teacher of Aristotle and the student of Socrates are (numerically) the same man. Why, then, can't Aristotle say that "the water we are now drinking is (numerically) the same as the water we drank yesterday" when the water we are drinking now came from the same spring as the water we drank yesterday?

Consider: all water is in something, just as all color is in something. Two things can be the same color, but two things cannot be the same water. While the color that is in something can be numerically one and individual, the water in this spring cannot.

If these claims are all true, then there is an important difference between:

(a) This is the same water as that.

(b) This is the same color as that.

Since color is a paradigm of something that plays a part in qualitative change, while water is paradigmatic of something which plays a part in substantial change, we are left with a difference, both in what we can say and in what there is, which squares with the different kinds of change Aristotle takes to be fundamental. As we shall see, however, there are difficulties with both.

A Critique of the M-thesis

What I have been calling the M-thesis is Janus-faced, looking, on the one side, toward nature and the separation there of things into kinds and, on the other side, toward speakers and their language whose classificatory expressions play a pre-eminent role in

saying what there is. For all of that, it is narrow in perspective: it leaves out of the picture all of those features of the world which make possible just what it is intended to explain.

On the side of nature, Aristotle tells us that some of the things which exist are substances. We are thus provided with things about which we can ask, "What is it?".* Since substance makes possible the existence of other things (however indelicate it is to speak of "things" here), we are also put in a position to ask what they are.** Nature further makes it possible for philosophers to ask what makes a thing the thing that it is, where this is not properly understood as a question in theology nor as involving an assumption that nature is an anthropomorphized force. It is rather to ask about the unification of form (or specific natures) and matter into unities which there are in nature.***

On the side of speakers and their language, Aristotle assumes that it is possible to confront nature with the "What is it?" question, quite apart from contextual considerations which give rise to such a question and give it sense. Further, he holds that speaking of the being of something comes to speaking of what the thing is, such that the meaning of "being" shifts from category to category, though always, as in nature, with special reference to substance. Thus, in

---

*Even in his discussion of things generated does Aristotle make it quite clear that cases of saying what something is are grounded in nature. See Met. VII, 7, 1032a12-16.

**And in quite the same way that we can ask what a substance is. See Topics I, 9, and Kosman, "Aristotle's First Predicament," p. 501 ff.

***See Met. VII, 7, 1032a22-26.

place of the activity of making clear or disclosing what one is speaking about, we find in Aristotle the saying or thinking what a thing is. In language, the correlate of the matter/form unification is essential predication and definition, while accidental unities are captured by predicating kata symbebekos.

Aristotle nowhere explains how we get in a position to ask what something is; rather, he assumes that, being in a position to say what things are, we are thus in a position to make further claims about them. In the Categories it is clear that the primary substances are also the primary subjects of discourse. Without them, nothing could truly be said to exist. In Metaphysics VII, where Aristotle returns to a consideration of what is to count as substance, he shifts to saying that the primary subjects of discourse (kath' hauto legomenon) are species,* and that if we say what one of these is, we define the subject. In the earlier account, saying what a substance is did not result in a definition. Nevertheless, since making clear what one is talking about and saying what it is come to the same thing,** the upshot of saying what a primary substance is is a necessary truth. From another point of view, this is to say that Aristotle's philosophy makes unintelligible the idea that people came to be in a position to say and to ask what things are. And while it is not incumbent upon a philosopher to explain how we came to be in such a position, any position

---

*Cf. G. E. L. Owen's comments on this point in "The Platonism of Aristotle," Proceedings of the British Academy, Vol. LI (London: Oxford University Press, 1965), pp. 136-137.

**In the sense in which I have argued that they do; but cf. Topics I, 9, 103a32 ff.

which makes this task impossible is misguided.

I will first criticize the M-thesis from the side of nature, so to speak, taking off from Owen's groundbreaking distinction between three kinds of cases in which something is said to exist, and his defense of an Aristotelian analysis which applies to one of them.* For though it has been portrayed as an account of how things exist,** Owen's discussion is properly seen as backing for the question, "What makes a thing the thing that it is?".

Owen distinguishes the "is" of "Arrowby is no more" from the "is" whose use "is rendered by 'il y a' and 'es gibt' and rendered in predicate logic by the formula '$(\exists x)$ Fx'."*** He is not interested in assertions of existence exemplified by the assertion that time exists. For clarity's sake he marks the first "is" with a single asterisk and the second with two asterisks. The crux of the issue he considers is well put by Attfield:

> On the Aristotelian analysis discussed by Owen to be is always to be something or other. For Socrates, to be is to be a living man. A large number of different paraphrases will therefore be called for depending on what kind of thing is said to exist: 'exists' will be analysed as a predicate whose sense varies with the nature of the subject concerned. Owen wisely restricts the application of this analysis to 'exists*', as opposed to 'exists**', and also to singular propositions. Only thus does the analysis turn out to be defensible. Thus for the ice on a particular pond still to exist* is for it

---

*G. E. L. Owen, "Aristotle on the Snares of Ontology," New Essays on Plato and Aristotle, edited by Renford Bambrough (London: Routledge and Kegan Paul, 1965), pp. 69-96.

**By Robin Attfield in "How Things Exist: A Difficulty," Analysis, 33, No. 4 (1973), pp. 141-143.

***Owen, "Snares," pp. 84-85.

still to be frozen water.*

Even on the narrow path scratched out by Owen there are pitfalls, though, for Attfield shows that, on this analysis

(a) The ice is still in existence

becomes by paraphrasing

(b) The frozen water is still frozen water.

The oddity of the analysis therefore lies in

> its purporting to translate what is not tautologous into a tautology. 'The ice is still in existence' will mean 'The ice is still frozen water'. But if to be ice is to be frozen water, then any ice is (still, now, or at any time) frozen water. The analysis, then, expresses a proposition which is necessarily true, whereas the analysandum in this case does not. It is not as if the ice might not have been frozen water. If ice is ice, it is frozen water, and where there is no frozen water there is no ice. Owen, at pp. 80, f., denies that there is any such problem over a particular patch of ice, as opposed to ice in general; but the distinction fails to rescue his analysis for the reason already indicated.**

There are two possibilities which Attfield does not mention here, either of which might be used in trying to rescue Aristotle from this difficulty. One of them is suggested by a passage in the Metaphysics:

> We must not fail to notice that sometimes it is not clear whether a name means the composite substance, or the actuality or form, e.g. whether 'house' is a sign for the composite thing, 'a covering consisting of bricks and stones laid thus and thus', or for the actuality or form, 'a covering' . . . .***

---

*Attfield, p. 141. The analogue, in the M-thesis, to the idea here that to be is to be something or other can be found in Durrant's claim that it is no contingent matter that individuals are of certain sorts and in Wiggins' claim that everything is something.

**Attfield, p. 142.

***Met. VIII, 3, 1043a29-33.

One might try to rescue "The ice is still in existence" from being transformable into a necessary truth by construing it to mean that the water and being frozen are still combined, i. e. that the form and matter still constitute a unity. Then to say, e. g. that Arrowby is no more will be to say that Arrowby's soul and Arrowby's matter are no longer combined. But Aristotle rules this out:

> . . . we find that the syllable does not consist of the letters + juxtaposition, nor is the house bricks + juxtaposition. And this is right; for the juxtaposition or mixing does not consist of those things of which it is the juxtaposition or mixing. *

But having ruled this out, another possibility remains, viz. that Aristotle cannot speak of <u>this</u> ice at all. Recall that Owen thinks that his defense of the Aristotelian analysis applies only to singular propositions, e. g. to a proposition about this patch of ice but not to a proposition about ice in general. But how can Aristotle (and, more generally, proponents of the M-thesis) account for this distinction?** As a speaker, I cannot pick out this man, say, by uttering the word "this," because an indexical expression, like pointing, is insufficient to the task. *** Nor can I reveal that I am talking about this particular

---

*<u>Met.</u> VIII, 3, 1043b5-10. Cf. Wiggins, <u>loc. cit.</u>, section 4. 2, for a discussion of this in Aristotle.

**If the distinction cannot be made, then Attfield's objection is avoided; but this would be a paradigm of the hollow victory!

***According to the M-thesis, uttering a demonstrative pronoun will suffice only if an appropriate classificatory expression is understood as its completion. Wittgenstein (<u>Philosophical Investigations</u>, 2nd ed., trans. G. E. M. Anscombe, 1958; rpt. London: Basil Blackwell & Mott, Ltd., 1963, para. 38) flies in the face of this doctrine when he says, "But it is precisely characteristic of a name that it is defined by means of the demonstrative expression . . . ." See also para. 45.

man by uttering the expression, "man," because uttering "man" indicates what sort of thing I am talking about, but not which thing of that sort I am talking about.* Or, in other words, it is not form alone which accounts for individuation.

There is an Aristotelian rejoinder to this objection, but I will postpone its consideration until the roots of this difficulty are traced out in the Categories and Metaphysics.

In the Categories, primary substances are said to "belong in" secondary substances; secondary substances are "said of" primary substances. So for Socrates to exist is for him to be a man, and ultimately a substance. Since being is not one of the kinds that things are said to be,** that he exists comes to his being of the kind which he is. And so it is for anything that can be said to be. Since the Categories doctrine is that the kinds (categories) are mutually exclusive of one another and exhaustive of the kinds of things there are, there seems to be no room left for asking whether a thing is the same as what it is. For to say that there are kinds of things is just to say that things are of certain kinds; this is why it is true to say that, if the primary substances did not exist, nothing else could. This, at least, seems to be a plausible way of construing the claim that primary substances belong in secondary substances. On this account, being is

---

*In this connection, note that in Met. VII, 4, "being you" is understood to mean "being a man": "For being you is not being musical, since you are not by your very nature musical. What, then, you are by your very nature is your essence."

**Posterior Analytics 92b14. The sense of Aristotle's remark here is well put by Anscombe (Three Philosophers, p. 21): "There is no such kind of thing as the things that there are; that there is such a thing as it is not what anything is."

homonymous, though not wildly so. For, as Owen points out, there is a limit to the number of accounts one can give of the ousia of things, corresponding to the number of categories there are:

> So it seems that the verb 'to be' in its existential role enjoys a number of irreducibly different senses. Indeed, even in one category the sense of the verb will vary from one sort of subject to another, as Aristotle's examples show; but within the category the senses will have something in common which a full paraphrase will bring out. For a shark, to be is to be a substance of some kind; and so it is for a shamrock. What Aristotle wants to dispel is the myth that there is equally something in common to sharks and shyness on the plea that each of them is a being or existent or thing of some kind. There is no such genus as being (and 'thing', as Berkeley confided to his notebook, is 'an homonymous word'). *

In the terms of the M-thesis, this is to say that, while everything must be something, being or existent or thing is not what anything is, for these are not among the kinds of thing there are. It is not yet to say, however, that being is not something said at all or that the being of a thing is just what it is. For this we must turn to the Metaphysics.

The opening remarks of Book VII tell us that the being of a thing is just what that thing is:

> There are several senses in which a thing may be said to 'be', as we pointed out previously in our book on the various senses of words; for in one sense the 'being' meant is 'what a thing is' or the individual thing and in another sense it means a quality or quantity or one of the other things that are predicated as these are. While 'being' has all these senses, obviously that which 'is' primarily is the 'what', which indicates the substance of the thing. **

---

*Owen, "Snares," pp. 77-78.

**Met. VII, 1, 1028a10-15.

The passage in the philosophical lexicon to which Aristotle here refers is as follows:

> The kinds of essential being are precisely those that are indicated by the figures of predication; for the senses of 'being' are just as many as these figures. Since, then, some predicates indicate what the subject is, others its quality, others quantity, others relation, others activity or passivity, others its 'where', others its 'when', 'being' has a meaning answering to each of these. For there is no difference between 'the man is recovering' and 'the man recovers', nor between 'the man is walking', or 'cutting' and 'the man walks' or 'cuts'; and similarly in all other cases.*

The upshot of these remarks is that the meaning of "to be," or what "being" signifies, is not single, but shifts from category to category. In the primary sense, "being" signifies what a thing is. In some cases, the verb, "to be," is altogether eliminable; in others, it plays a role auxiliary to the task of saying what a thing is, or how it is, and so on.

On the one hand, then, Aristotle is radically anti-Parmenidean, for he here seems altogether distant from the idea that one could disclose what the First Way is by saying that it is. On the other hand, since to speak of the being of a thing, in the primary sense, is to say what it is, the two ideas are not, after all, entirely disparate. As Owen notes,

> Philosophers who remark that existence is not a predicate sometimes find support in Aristotle's argument that being is not a genus. But what Aristotle says is that 'to be' means 'to be so-and-so', and that the values of 'so-and-so' vary with the sort of subject we assign the verb. So it seems that if Aristotle does not treat existence as a predicate this is only because he treats

---

*Met. V, 7, 1017a22-30. The phrase Ross translates as "'being' has a meaning answering to each of these" is rendered more exactly by Kirwan: "'to be' signifies the same thing as each of these." Aristotle is making a very strong claim here; Ross weakens it.

it as a disjunctive set of predicates.*

The notion that the "values of 'so-and-so' vary with the sort of subject we assign the verb" gets spelled out in Book VIII of the Metaphysics, where Aristotle claims that Democritus was too simple in assigning only three kinds of difference between things regarding what they are:

> But evidently there are many differences; for instance, some things are characterized by the mode of composition of their matter, e.g. the things formed by blending, such as honey-water; and others by being bound together, e.g. a bundle; and others by being glued together, e.g. a book; and others by being nailed together, e.g. a casket; and others in more than one of these ways; and others by position, e.g. threshold and lintel (for these differ by being placed in a certain way); and others by time, e.g. dinner and breakfast; and others by place, e.g. the winds; and others by the affections proper to sensible things, e.g. hardness and softness, density and rarity, dryness and wetness; and some things by some of these qualities, others by them all, and in general some by excess and some by defect. Clearly, then, the word 'is' has just as many meanings; a thing is a threshold because it lies in such and such a position, and its being means its lying in that position, while being ice means having been solidified in such and such a way.**

Nature, then, provides us with unities, some of which can change, because they are composite, and others of which cannot, because they are simple. The unity is a unity of form and matter, e.g. wood and such and such position.*** The form of a thing is what answers, in nature, to the question, "What is it?," and one can now also ask whether the thing is the same as what it is. But this is a question I do not pretend to understand. Indeed, insofar as the Metaphysics account just considered is meant to answer the question, "What

---

*Owen, "Snares," p. 78.

**Met. VIII, 2, 1042b14-28.

***Met. VIII, 2, 1043a5-10.

makes a thing the thing that it is?," or "What makes this one thing?," I am at sea without a compass. It is clear enough what it means to say that a table is composite when this means that the table is assembled from parts. But among its parts one will not find its shape or color or the arrangement of its parts, let alone what it is. Nor is it clear how its being what it is will account for the difference between its being changed (merely) and its being destroyed or created, where "its being what it is" is understood to have no reference to anyone's interest or intentions. But this will be more perspicuous if we turn to a consideration of the M-thesis vis-a-vis language and speaking.

Since nature provides us with things that have essences, we, knowing what they are, will be in a position to say what they are.* More importantly, knowing what things are, we will be able to talk about them. For if we do not know what a thing is, then we cannot know that it exists: for it to exist is just for it to be so-and-so, i.e., what it is. Hence, to know that it exists is to know that it is so-and-so. Kosman has put this in terms of a condition necessary for successful reference:

> A condition of successful reference is that we be able to indicate in some manner <u>what</u> that to which we are referring <u>is</u>.**

The point is that if we are to make a claim about something, we must have a way of disclosing what it is about which we are making the claim.

---

*An account of how we come to know what things are, according to Aristotle, will not be covered here. He has not much to say about this, and what he does say, e.g. at <u>Posterior Analytics</u> II, 22, is most obscure.

**Kosman, "Predicament," p. 493.

Since that thing is something (what it is), a fact which nature ensures by providing things with essences, we are in a position to say what it is we are speaking about. Aristotle, having given the expression "what it is" the special sense he has, can now make the transition from

(a) disclosing what it is about which one is speaking

to

(b) saying, of the thing about which one is speaking, what it is.

Although it is not a point which occupies Aristotle, Kosman (who certainly takes himself to be explicating Aristotle's ideas) contrasts his own claim that being able to say what a thing is is necessary for reference with the denial that pointing is a sufficient condition for reference:

> If I point in the general direction of Socrates and say 'That is such-and-such (has such-and-such characteristic),' there is a multitude of things to which I might be referring: the man, his color, size, shape, cloak, the color of his cloak, etc. There must be available some further means of specifying what it is I am pointing to.*

The further means, of course, is the Aristotelian what it is, and in two senses. On the one hand, the form and essence, which is given in nature; on the other hand, the "names" of these we can utter in saying what a thing is.

Kosman's statement about pointing is skeptical: since pointing might be misunderstood, it is never sufficient.** Aristotle is not a skeptic, but he is guilty of two other sins, equally cardinal: (1) he assumes that knowing and saying what a thing is has a sense

---

*Ibid., p. 494.

**This is like the Cartesian and Platonic assumptions that, if we might be wrong, we don't know.

independent of particular contexts and (2) he confuses saying what a thing is with disclosing what one is talking about. Put in other terms, Aristotle is guilty of thinking that, if there were no essential predication, there could be no predication at all. *

I suggested above that there is a peculiar image of the world reflected by the M-thesis, a world in which man is pictured as an observer of the passing scene. To this extent, the image is not unlike the quaint scene portrayed in Plato's allegory of the cave; what Plato finds objectionable about the men in the cave is that they are observing the wrong sort of thing, but not that they are mere observers. In Aristotle's view, man is not a creature whose words chase after shadows. Rather, words are signs of affections in the soul, and what these affections are likenesses of are the same for all men. ** So men, whatever words they happen, by convention, to utter, nevertheless can speak about what there is, i.e., what there really is and not just images.

According to Plato, what makes an image of this an image of this is the form in which it participates. According to Aristotle, there is only one world, and it is the same for all men. *** So there is no need to appeal to something separate to account for something's being what it is. What makes a thing the thing that it is,

---

*See Met. IV, 4, 1007a33 ff.: "If all statements were accidental, there would be no first thing which they were about; . . . but this is impossible."

**Aristotle, de Interpretatione I, 1, 16a3-9.

***I do not mean to suggest that Aristotle thought that there is only one planet inhabited by men, or anything of that sort.

Aristotle contends, is its form. But this is just a way of saying that certain of its properties are essential, i.e., such that without them it could not be the thing that it is. The "makes" of "What makes a thing the thing that it is?" can thus give way to the "on account of what" of "On account of what is this thing what it is?". Neither of these questions is a request for a modern causal explanation, but only for an answer that could appropriately complete a remark beginning with the word "because."* Still, it is not clear what more precise sense the question and answer are to be given, i.e., without already having adopted Aristotle's doctrine of the four kinds of cause.

Anscombe notes, regarding this point, that Aristotle "raises the question, 'Is each individual man, say, the same as what he is?' and gives a (qualified) affirmative answer to it."** I am not as concerned as she is with the answer as I am with the question. According to D, which I identified above as a part of the M-thesis, if two things are said to be the same, then it is always appropriate to ask, "The same what?". The context shows, as Anscombe notes, that the answer in this case is "the same substance," and that further

> it looks as if one should ask 'the same first substance, or the same second substance?' on the grounds that since both have been introduced, the term 'substance', without qualification, is ambiguous.***

This is surely right, but is, at the same time, highly theoretical. For

---

*See Gregory Vlastos' helpful remarks on the meaning of aitia in "Reasons and Causes in the Phaedo," Plato I: Metaphysics and Epistemology (New York: Anchor Books, 1970), pp. 134-137.

**Anscombe, pp. 32-33.

***Ibid., p. 33.

one cannot understand the claim that Socrates is the same first substance as what he is without having grasped the sense of "first substance" in the Categories, and the technical sense of "what he is" developed elsewhere in Aristotle's writings. So we are back to the question, "On account of what is this thing what it is?" Let us suppose, then, that this is a question raised about a man.

But why should such a question arise? It might arise in the first person, taking the form, say, "Why am I a man?". But this is hardly a philosophical question. Perhaps it is the anguished expression of transsexualism; one would have to fill in some details. "On account of what is this a man?" or "What makes this thing a man?" sound like elliptical versions of "Why is this thing called a man?". Again, one might ask such a question about a character like the protagonist of Johnny Got His Gun,* or about a eunuch. Then again, a military drill instructor might raise such a question about an inept recruit. But if it is meant to be a question in philosophy, it may turn out that the answer will be: "This is just what we call a man." Again, it will depend, at least in part, on what gave rise to the question.

Anscombe reminds us that this sort of question arose, for Aristotle, against the background of Platonism. Aristotle did not ask, "Why does this question arise?" or "Does this question arise?", but rather saw that Plato's answer to it gave rise to new and intractable problems, so he set about to answer it differently. This was his error.

---

*Dalton Trumbo, Johnny Got His Gun (Philadelphia: J. B. Lippincott, 1939).

According to Anscombe, however (and this will be a central point in the discussion of Aristotle's theory of change), Plato's student, having rejected the view that predicative expressions stand for separately existing universals, took the view that

> certain predicates (i.e. the ones that fall under one or another of his 'categories'), when truly applied to a 'first substance', indicate an existence or an existent; I do not know which expression is the apter.* When the predicate is in the category of substance (e.g., 'man'), the existence indicated is the very same as the existence indicated by the proper name (e.g. 'Socrates') of that first substance which is the subject of the predication. When the predicate is in some other category (e.g. 'white'), we get a distinction which does not exist for the category of substance: a *per accidens* being (e.g. a white man) is indicated, which would be indicated also by the combination of the predicate as an adjective with the proper name (e.g. "White Socrates"); but also a *per se* existence, which is other than the existence indicated by the proper name.**

The distinction between *per se* and *per accidens* beings is one which I shall call upon later in explicating and criticizing Aristotle's theory of change. For the moment, let me leave the M-thesis as it applies to nature to consider its implications for the philosophy of language.

Here, the question is not "What makes this sort of thing this sort of thing?" nor "Is each individual the same as what it is?". But there are parallel considerations: the M-theorist purports to explain both what is necessary for a reference to this to be a reference to *this*, and what is necessary for two things to be the same (or for two things to be properly said to be the same). I will take these points up separately.

---

*The former is adopted by Owen in "Snares."

**Anscombe, pp. 30-31.

If I am successfully to refer to something, then I must be able, in principle, to say what it is to which I am referring. If I simply point or say "that," it is always possible that I will be misunderstood. Worse, if I cannot say what it is to which I am referring, then it is not clear that I am referring to anything at all. For if I cannot identify what it is to which I refer (this is where nature helps by ensuring that everything is something, i. e. of some sort or kind), then there is no sense to be made of the idea that I am referring to some particular thing.

Now this is not to say that one needs actually to employ some form of the expression "that such-and-such" to identify the thing to which one is referring:

> often, perhaps usually, the context and shared lives of the conversants will make clear what even a bald gesture or "that" refers to. But for this to be the case, it must be possible for us to perform an explicit act of identification; we must have at our command the capacity to make clear what we are referring to.*

These remarks show that making clear what one is referring to ultimately comes to saying, or being able to say, of the thing to which one is referring, what it is. And "saying what it is . . ." is to be given an Aristotelian interpretation, viz. saying what substance or quality or quantity, etc., it is. In general terms, the possibility of making clear or disclosing what it is to which one is referring rests upon the possibility of engaging in a certain sort of speech act: saying of a thing what it is.

Further, Kosman builds into the notion of "having

---

*Kosman, "Predicament," p. 494.

shared lives" the possession, on the part of those who so share in a form of life, common linguistic resources, at least to the extent that the "shared lives of the conversants will make clear what even a bald gesture or a 'that' refers to."* Thus, the shared lives and context can make clear only to which sortal or classificatory expressions one would appeal in order, by means of "an explicit act of identification," to identify the referent, i.e. say what it is.

This has a further consequence: if a person asks what something is, then he must be construed (1) as having made clear what it is he is asking about, and (2) as having asked, of that thing, what it is. But for (1) to be the case, it must already have been made clear what the thing is. So it is both being made clear what the thing is and being asked what it is.

Of course, we sometimes do ask what something is when we already know, in some sense, what the thing is. We might know, say, that something is an instrument, yet ask someone, "What is that?". One might then understand the question as elliptical for "What sort of instrument is that?", i.e. as a request for some more specific information. The M-thesis implies that all "What is it?" questions are either intelligible in this way or not intelligible at all. And this is so because in (1) above, "making clear what one is asking the question about" must, as I have argued, be taken by the M-theorist to be the same as saying, of the thing in question, what it is.

While some will take this to be a reductio ad absurdum

---

*One is here reminded quite appropriately of the paradox in the Cratylus that the name-giver must know the right names of things before he can give them.

of the M-thesis, others will want to find out if there are counter-examples to it. I would like now just to spell out one further consequence of it, then move on to a discussion of Aristotle and the Problem of Universals. For it is with respect to his account of universals, in particular, his theory of opposites, that the M-thesis will be seen to have a direct bearing on his account of change.

The further consequence concerns the relation between the two sides of the M-thesis. Imagine, for a moment, a group of primitive people among whom a language is developing. In some sense, they have a shared form of life. They are a tribe of people, for example, not just a random assortment, and there are rituals and communal activities in which they participate.* In one such activity, a wooden ball is thrown around. Everyone tries to keep it in his possession as long as possible, throwing it down only when he is made to do so. When the ball is not in use, it is kept in a pouch under the chief's throne. At some point in the history of this tribe, it is clear that there is no word for this object; later, it comes to be called a "ball." Now the M-theorist would hold that, later, the tribesmen know what the object is; earlier they did not. And this is surely right. But it is also apparent that, earlier, a tribesman could point to the ball, thus making clear, say, what it is that he wanted. Yet this is what the M-theory denies, the very feature of the communal activities and shared form of life that makes it intelligible that a word like "ball" could come to have a use in a community. This sort of account also

---

*I hope this is not taken to be armchair anthropology. I intend only something like Wittgenstein's notion of a simple language game, or what some philosophers call a "thought experiment."

leaves open saying that the tribesmen might know what someone wants, without knowing what that thing is, in Aristotle's sense. Just so, a child might know what a torque wrench is, in the sense that he can fetch it for his father on demand. He knows what it is that his father wants when his father says, "Get me the torque wrench from the tool-box." But this is not to say the he knows what its species is, or that it is a token of a certain type, or that it is of a certain form or essence. That is, he need not know what it is to be a torque wrench.

It is, therefore, worse than odd to think that if the claim, "everything is something," means anything at all, it should mean that everything is an item in a category or that everything is classified in a certain way. For this makes it sound as if nature is responsible for the classification of things, and that language is a kind of stand-in for the things and their classifications (perhaps this is why Aristotle thinks that words are signs). In any event, he does think that everything which changes is something, and changes into something, and that this is not a "grammatical remark." By "something" he means "<u>what</u> it is." We are now in a position to see what a narrow and technical sense he attaches to this, and so in a position to evaluate his account of universals and opposites.

II

UNIVERSALS AND OPPOSITES

Opposition

Aristotle says that contrariety is a kind of opposition, and he distinguishes it from the opposition of relatives, of privations and possessions, and of affirmations and denials. Contraries, unlike affirmations and negations, are among those things which can be "said without combination" (de Interpretatione, 13b10) and, unlike privations and possessions, change into one another (13a17). So characterized, contraries appear to have a double nature; for it would seem to be universals which are said without combination (health and sickness are Aristotle's examples), on the one hand, while, on the other, universals seem to be eminently unqualified to be the kinds of thing which change into one another. That is to say, it is a healthy man who becomes a man who is ill, while it is health, and not a healthy man, which is said without combination. From his examples of contraries said with combination (Socrates is well; Socrates is sick) one can see that by "contraries said without combination" Aristotle means to be speaking of things in categories other than the category of substance: it is not Socrates who accounts for the contrariety. Furthermore, Aristotle speaks of contraries belonging to the same thing (14a15) and contends (14a19) that they may be genera, e.g., good and bad.

There are places in the text which suggest the following:

Aristotle is not talking nonsense when he says that contraries change into one another, but is merely speaking elliptically. Where he says that they change into one another, what he means is that something which has a certain property comes to have a contrary property.* For example, when he contrasts contraries with privations and possessions, his point is that, though the sick man can become well again, the bald man cannot regain his hair. On this reading, while contraries are said to be forms, and are said to change into one another, strictly speaking it is things having forms which change into one another. It is just this view, after all, which led commentators to invoke the notion of prime matter in accounting for Aristotle's belief that there is substantial change. Let us suppose, for the present, that this interpretation is correct.

What is involved, then, in saying that contraries are forms which are opposed?

A preliminary question must be dealt with here: what is it to say that contraries are forms? It is little help to say that they are universals or that in talking about forms Aristotle was making a contribution to the problem of universals. It is Aristotle who says that change involves the presence and absence of form (Physics I, 7), but so far I have been using the expression, "universal," to trade upon some traditional ideas in speaking about his contention that change involves contraries.

---

*The distinction is drawn in the Phaedo, Collected Dialogues of Plato: Including the Letters, eds. Edith Hamilton and Huntington Cairns (Princeton, New Jersey: Princeton University Press, 1963); see 70e ff. and 102b5 ff.

The feature of the traditional account I have in mind is a distinction between individuals and the characteristics they have; for instance, consider the distinction between Fido and his shape. Fido has a shape, a shape which other dogs might have too, if they look like him, so in saying how Fido looks we mention those things which our tradition has called universals. Hence, Aristotle's "form" and "shape." Of course, there are complications here: Plato's forms were, in some sense, individuals as well as characteristics. But both Plato and Aristotle thought that just as a number of things can have the same color or shape, so they can have something else in common too, that which accounts for their being what they are, and not something else. This has been called "essence." According to Plato, for any such characteristic a number of things have in common, there is a form in relation to which all those things stand. The form is separate from them. According to Aristotle, the form is not something separate.

Nevertheless, Aristotle speaks of the presence and absence of a form. And he says that some forms are "opposed." Certain of these opposed forms are contraries, when their opposition is of a sort he calls "contrariety." Forms are always the forms of something, and the general notion which Aristotle used to express this dependence of form is matter: matter underlies form; the relation of participation in Plato is replaced in Aristotle by the relation, underlies. Change is thus understood in terms of the presence and absence of form, together with an underlying thing. In the case of non-substantial change, this means that "alteration," as it is called, can be expressed in terms of the tradition by saying that an individual loses one universal and gains another.

Again, this would be to say, in Platonic terms, that an individual ceases to participate in one form and begins to participate in another. Except that we are to say that the individual now underlies one form, now another. This interpretation makes Aristotle out to be a peculiar kind of Platonist, an upside down Platonist.

There is some defense for this in a remark in chapter five of Aristotle's Categories. Having distinguished primary substances, which are the ultimate subjects (ultimate underlying everything) for all else that exists, he says (contra Plato):

> All the other things are either said of the primary substances as subjects or in them as subjects . . . . So if the primary substances did not exist it would be impossible for any of the other things to exist. (2a34-2b6).

But since the primary subjects are not characterless individuals, or bare particulars, they could not exist without the other things, the forms or universals. Despite his intentions, he manages to replace the dependence of individuals on forms with the mutual dependence of the two sorts of things on each other.

This is particularly clear in the case of the relation between first and second substance, and bears upon his account of change in the category of substance, or genesis. While it is a contingency that a first substance has certain properties, say, being white, it is not a contingency that it is the sort of thing it is, where "sort of thing it is" means "the substance it is," say, a man. What underlies being white, say, is a man, an individual in the category of substance. This man could turn dark and be what he is. Obviously, the expression, "what a thing is," bears a great deal of weight here.*

---

*Because Aristotle could not mean "pale man" or, e.g.,

Aristotle means by "substance" both what a thing is and individual things that exist. This is his distinction between primary and secondary substance. Secondary substances are species and genera, according to the Categories, things which make it possible for us to know what a thing is:

> Of the secondary substances the species is more a substance than the genus, since it is nearer to the primary substance. For if one is to say of the primary substance what it is, it will be more informative and apt to give the species than the genus. (2b7-10).

Another Platonic strain in Aristotle, then, is the role forms play in making the universe intelligible. Indeed, it is better to say that this is Socratic. For just as Socrates seemed to think that a question of the form, "What is it?", takes an answer of a single sort, Aristotle supposed that saying what a thing is comes to engaging in an activity with a certain single end, namely, specifying its form and substance. And for both of them, that it is possible to say, in this sense, what something is was thought to make rational discourse possible.

One of the considerations which led Plato to the belief in separate forms was this: when I say that a number of different things are red, I can be taken to have said that there is something which all of those things are or have, namely, the color red. None of the things is the color red, so each of the things must be in some relation to it. Aristotle calls being red a qualification, not a relative, but still speaks of things possessing qualities:

> A third kind of quality consists of affective qualities

"a man who is less dark than snow," but only "the substance, man." "What x is" does duty for "substance" in contexts like this one.

> and affections. Examples of such are sweetness, bitterness, sourness, and all their kin, and also hotness and coldness and paleness and darkness. That these are qualities is obvious, for things that possess them are said to be qualified in virtue of them. Thus honey because it possesses sweetness if called sweet, and a body pale because it possesses paleness, and similarly with the others. (9a28 ff.).

As these remarks show, Aristotle is certainly not a nominalist, believing that even the simplest things we say must be underwritten by facts. What certifies one in saying that snow is white is the whiteness in the snow, the correspondence between what we say and what there is. It is as if every remark we make stands in need of the same kind of explanation: if it is true, it is true because . . .; if it is false, it is false because . . . . As it will be shown in a later section, such an explanation is made necessary because Aristotle understands saying something as a combining of things: when things are combined in speaking as they are in fact, then something true is said. What is crucial here is the nature of the combined objects. In the remarks quoted above, sweetness is said to be in honey, which is why honey is said to be sweet. About such circumstances, Aristotle is ready to make two claims: (1) sweetness is not said of the honey; (2) sweetness is in the honey. These claims are controversial because, with the publication of Ackrill's translation of the Categories and Owen's paper, "Inherence,"* they have given rise to a dispute over what Aristotle means by an individual in categories other than substance. In one sense this analysis is comic, for what sort of an explanation would it be to say that I call something what it is because it is that way. ("Why

---

*G. E. L. Owen, "Inherence," Phronesis, X, No. 1 (1965), pp. 97-105.

do you say the Earth is round?" "Because it is.") In another sense, we must sometimes say (to a philosopher) that something is called sweet just because it is sweet, explanations having to end somewhere. Suppose, then, we take Aristotle to be saying that

(a) there are things called qualities.

(b) things have qualities.

(c) the distinction between a thing which has a quality and the quality which it has is an instance of the relation between a form and an underlying thing.

In subscribing to (a), Aristotle is not subscribing to the Platonic tenet that there are kinds of being; Aristotle holds that being is not a genus. To say that (a) is true is just to say that (b) is true, so to claim that there are forms is just to claim that things have forms. In our passage, Aristotle is claiming that some existing things are <u>said of</u> others, and that some are <u>in</u> others. Regarding being in a subject, there is no reason to suppose that this relation is dependent upon a speaker: something can be in something else whether anyone has said so or not. On the other hand, the "said of" relation looks as if it might be speaker-dependent. But it is not. From his examples, it is clear that Aristotle does not mean that something is said of a subject only if something has, in fact, been said to be something else. It is not the name "man," though this is <u>also</u> predicated, which stands related to the subject in the "said of" relation, but man. The grounds for saying that man is said of the individual man may be that individual men are called "men," but this is not what is meant by saying that man is said of the individual man. When a man dies, he ceases to be a man and becomes a corpse. It is no longer correct to call the thing a man because it is no longer a

man, and not the other way around. One might be tempted to say, then, that man is not part of this thing which can come and go like the heat in an iron. There is nothing (like the iron) which is first a man and then a corpse (first hot and then cold). Perhaps it is wrong to speak of being said of a subject as a relation at all, for so speaking suggests the possibility of disconnection, when there is none. And thus it will be incorrect to speak of Socrates and man as combined and connected, if that is taken to imply that two things become one man. Man is not something separate, and there is no individual which comes to be a man.

If this gives a sense to saying that forms are not separate, and what it is for something to be said of subject, but not in it, how is one then to understand what it is for something to be in a subject, but not said of it? If I say that some particular light color (τὸ τὶ λευκόν) is in a body, then, according to Aristotle, I am saying that this light color is in the body "not as a part" and that this light color "cannot exist separately from what it is in."

Since these ideas are obscure and their interpretation is controversial, I quote in full the passage from which they were taken:

> Of things there are: (a) some are said of a subject but are not in any subject. For example, man is said of a subject, the individual man, but is not in any subject. (b) Some are in a subject but are not said of any subject. (By 'in a subject' I mean what is in something, not as a part, and cannot exist separately from what it is in.) For example, the individual knowledge-of-grammar is in a subject, the soul, but is not said of any subject: and the individual white is in a subject, the body (for all colour is in a body), but is not said of any subject. (c) Some are both said of a subject and in a subject. For example, knowledge is in a subject, the soul, and is also said of a subject, knowledge-of-grammar. (d) Some are neither in a subject nor said of a subject, for example, the individual man or individual horse--for nothing of this sort is either in a subject or said of a subject. Things that

> are individual and numerically one are, without exception, not said of any subject, but there is nothing to prevent some of them from being in a subject--the individual knowledge-of-grammar is one of the things in a subject.*

As Ackrill has noted, the use of "in" in the definition of "being in a subject" must be non-technical, because Aristotle uses it in explaining his technical use of "in" in the definiendum. Not all things that can ordinarily be said to be in something are in another thing in the technical sense, so it is only a necessary condition that it be said to be in another thing. Ackrill proposes that since

> Not all non-substances are naturally described in ordinary language as in substances, . . . we can perhaps help Aristotle out by exploiting further ordinary locutions: A is "in" B (in the technical sense) if and only if (a) one could naturally say in ordinary language either that A is in B or that A is of B or that A belongs to B or that B has A (or that . . .), and (b) A is not a part of B, and (c) A is inseparable from B.

Ackrill concludes that "the inseparability requirement has the consequence that only individuals in nonsubstance categories can be 'in' individual substances . . . . Thus the inherence of a property in a kind of substance is to be analyzed in terms of the inherence of individual instances of the property in individual substances of that kind." (p. 74).

G. E. L. Owen agrees with Ackrill, against Anscombe, that Aristotle does speak of individuals in non-substance categories, but draws a distinction between an expression for leukon ti in its use as a color adjective and as a name for a "wholly determinate specimen of its class."** In its former use, a color is predicated of a colored

---

*Categories II, 1a20-1b9.

**Owen, "Inherence," p. 98.

thing. But in the latter use (with which Owen takes Aristotle to be concerned in our passage) it functions as a name to identify an individual. If "vink" is such an expression, then there is an analogy between "vink" and the name of an individual in the category of substance:

> The analogy is just that vink, or its name, is not predicable of any less general shade of color. To say, 'That shade is vink' is to name the shade, not to bring it under a wider class of colors: vink is a wholly determinate specimen of its class.

To say this, Owen thinks, is not to say that vink cannot be found in more than one subject, though this is the view several commentators have attributed to Aristotle.*

Commentators have been led to this interpretation by what Ackrill calls "the inseparability requirement." Since, to stick with Owen's example, vink is said to be unable to exist apart from what it is in, vink is taken to be the name of the color in Socrates such that "vink" is short for "Socrates' vink." Only Socrates can have Socrates' vink, so it cannot be found in anything else. The consequence of such a view, which Aristotle does not draw, is that no two things could be said to have the same color, or anything else that is "in a subject."

This has important consequences, if it is true, for Aristotle's account of contraries. In chapter ten of the Categories, he says that

> with contraries it is not necessary if one exists for the other to exist too. For if everyone were well health would exist but not sickness, and if everything were white whiteness would exist but not blackness.

---

*W. D. Ross, Aristotle, 5th ed. (London: Methuen and Co., 1949), p. 24, n. 1; J. R. Jones, "Are the Qualities of Particular Things Universal or Particular?, Philosophical Review, LVIII (1949), pp. 152-170; Anscombe, Three Philosophers, pp. 7-10.

> Further, if Socrates' being well is contrary to Socrates' being sick, and it is not possible for both to hold at the same time of the same person, it would not be possible if one of the contraries existed for the other to exist too; if Socrates being well existed Socrates' being sick would not. (14a6-14a14).

Now to say that A and B are contraries is to say, among other things, that they are opposed. But if we are to speak of Socrates' health, its contrary must be Socrates' illness, where speaking about "Socrates' illness" is not a way of speaking about cholera but, at best, Socrates' cholera. It would then follow that if one such contrary existed the other could not. But something is then said to be opposed to something which cannot exist. Aristotle denies, of course, that if one exists then the other must exist, thinking of a case in which everyone were well. Even in that case it is difficult to make sense of an opposition between two things, one of which does not exist. But in the other case, there is a more serious difficulty. For if Socrates' health is opposed, not to illness but to Socrates' illness, the question arises, "What is Socrates' illness?" It cannot be any illness which he has, because it would then be false to say he is well. But it cannot be an illness which he does not have, for then it would not be an illness of Socrates. This is a general difficulty and one which arises full-blown from the interpretation which Owen attacks. For if there are individuals in non-substance categories in Ackrill's sense, then, for any such individual, it can exist only if its contrary does not. It is then impossible for them to be opposed; hence, it is not possible for them to be contraries.

Owen's attack largely takes the form of spelling out the absurdities that would follow were such an interpretation as Ackrill's correct. The strongest of these concerns the point just made about

contraries. To speak of Socrates' illness on Ackrill's interpretation is not to speak of, say, cholera but Socrates' cholera. Owen claims that this leads to a "paradox of implication":

> If X is an individual, the statement that a particular Y (say a particular color) is in X will not entail but actually preclude saying that Y without qualification is in X. You ask me what color there is in Socrates' body: I reply meticulously 'Socrates' pink'. You may find this to some extent uninformative; but when I try to isolate the informative element for you I founder. If I say 'The color in Socrates' body is pink,' the dogma rules out what I say as ill-formed. Alternatively, 'pink' may be supposed to stand for a different color with each different individual subject; but Aristotle never suggests this . . ., and he knew an argument that could be turned against it.*

But this objection rests upon the assumption that Aristotle knew that a consequence of speaking of, e.g. colors which are individual and numerically one was that they could then be identified only in the way that Owen proposes. No evidence is given, however, that Aristotle saw this consequence. So one who tries to get a grip on the truth of this matter by taking these passages in hand is left with a stinging palm.

Saying Something

One way out of the difficulties involved in having to say that things are opposed or contrary to one another is to regard opposition or contrariety as something which arises in discourse. That is to say, for example, that in place of supposing that heat is opposed to cold, one will instead contend that it cannot be true to say of something both that it is hot and that it is cold. It is then in place to speak of claims being opposed, and unnecessary to consider things themselves

---

*"Inherence," pp. 101-102.

as opposed, unless one is speaking of armies or disputants and the like. This view would have the further advantage that it would no longer be necessary to speak of the existence of contraries, as if things are somehow composed of them. Instead, contrary claims will find a place in arguments and reasoning, playing a role in the constitution of discourse, but not of things themselves.

Unfortunately, Aristotle's notion of what it is to say something will not permit this meek adjustment to be made. Indeed, he would regard it as a major displacement of responsibility, for it is the opposition of things which is meant to account for the opposition of claims. He further thinks that expressions for opposites (I shall call them "o-expressions," following Richard Bosley*) are uttered in answering "what?" questions, thus helping to make palatable the idea that opposites are forms, which in turn gives aid and comfort to the view that all change involves opposites.** Before launching an assault against this doctrine, it will be helpful to set out, in a more general way, Aristotle's account of saying something.

In the Categories, Aristotle remarks that "of things that are said, some involve combination while others are said without combination."*** Readers of the Sophist may notice a resemblance

---

*"Universals," unpublished MS, edited by Richard Bosley (University of Alberta).

**It would be more accurate to say that o-expressions stand in for things in a discussion, as evident from Sophistical Refutations I, 1, 165a5-10: "It is impossible in a discussion to bring in the actual things discussed: we use their names as symbols instead of them; and therefore we suppose that what follows in the names, follows in the things as well . . . ." Not all expressions are like this; see Poetics, 20, 1456b38 ff.

***Categories, 1a16.

between this claim and the tonic Plato used to remedy some deficiencies in his Theory of Forms; but there the notion of combining or blending was as unhelpful as a patent medicine. Aristotle is not concerned with the blending of Platonic forms, but instead with the combination of things said.* But not all things said involve combination; Aristotle gives a list of things said without combination, remarking that each of them signifies something in one of the categories. And it is "by the combination of these with one another (that) an affirmation is produced. For every affirmation, it seems, is either true or false: but of things said without any combination none is either true or false . . . ."** While it is not clear whether Aristotle means by a thing said an expression or sentence, on the one hand, or a sort of object on the other, three points do emerge here. The first is that each uncombined item signifies something, while the second is that no uncombined item is a bearer of truth. The third is more obscure: affirmation is combination, joining together, interweaving. On a metaphorical level, one is reminded of Plato's image of the warp and the woof: to speak is to do something rather like manipulating a device, binding strands together with a shuttle-cock.

In the Sophist the Stranger makes the much discussed claim that "it is on account of the combination of forms with one

---

*In Plato there is no suggestion that the blending of forms results in something which is one. Aristotle, however, is at pains to distinguish a combination of things from a mere sequence of things: "How we come to conceive things together or separately is another question--by together and separately I mean not in succession but so as to make up some one thing." (Met. E, 4, 1017b23-25).

**Categories 4, 2a4; cf. de Interpretatione 16a9 ff.; Met. 1012a2 ff., 1027b17, 1051b1 ff.

another that discourse is possible for us."* This is the echo of an idea found in the Parmenides and one which, by the time of the Categories, was surely well-embedded in the groves of the Academy in some form or another. Aristotle, we know, renounced part of this theory; for him there was no need to speak of the combination of (Platonic) forms. But just as certainly we can see in Aristotle's work that the time had not passed for the idea that discourse gets its life from a kind of combination. For even though Aristotle would not grant currency to Plato's talk about the separate existence of forms, he would also not reject as a counterfeit truth the Stranger's claim that "'walks runs sleeps,' and so on with all the other verbs signifying actions--you may utter them all one after another, but that does not make a statement" (Sophist, 262 b). Indeed, it appears that this well-worn coin felt the rub of many fingers; even some of the examples are repeated by Aristotle. But before considering his account, it will be helpful to do a bit more groundbreaking in Plato's terrain.

For Plato, then, combination is a notion necessary to account for the possibility of falsehood and, hence (though this was not so clear an implication) the possibility of truth. Moravcsik has argued that Plato was here trying to refute semantical and logical atomism or, in his words, arguing that "statements, and the reality that underlies them, are complexes and that what distinguishes falsehood is not the lack of reference, but the misrepresentation of the connection between parts of reality."** I think it is easy to sell Plato short here, for in

---

*Plato, the Sophist, Collected Dialogues, 259e.

**J. M. E. Moravcsik, "Being and Meaning in the Sophist," Acta Philosophica Fennica, Fasc. XIV (1962), p. 41.

fact Plato was noticing something quite important in this part of the Sophist, something which Aristotle failed to see, namely, that there is another condition which must be satisfied in order that what someone says be true or false. After making the point that falsehood arises because we speak of things that are not as if they are, and things that are other as if they are the same, Plato goes on to say that a logos which is not about something is not a logos at all. Moravcsik's interpretation contains the suggestion that all this means is that in order for something to be a sentence, there must be a subject. So it would appear that having a subject is quite a different sort of requirement from the demand that there be combination, and not just giving names or listing verbs. But here there does not seem to be a naming-describing confusion (as there is in the view of the Cratylus which we will consider in a moment); so even if Moravcsik is right in characterizing the general argument of the Sophist as an attack on semantical atomism, that seems irrelevant in this context. But, more importantly, Moravcsik suggests that the theory of combination comes down to a theory of predication, i.e. that the verb or predicate plays a preeminent role in this account of truth and falsehood.* Now he is correct in claiming that, in this part of the Sophist, by a verb (rhema) Plato means not only what we call verbs, but adjectives as well, or anything that could be said to characterize a subject. Plato is not constructing a grammar. But this is why it is wrong to think that Plato is describing a condition necessary for something's being a sentence. For just as he denies that a noun by itself can be either true or false, he denies

---

*Moravcsik, p. 76.

that a verb by itself can be either true or false, and in Greek a verb by itself can count as a sentence. So in spite of the apparently grammatical discussion of nouns and verbs, it is not the mere concatenation of nouns and verbs that produces a logos, that makes it possible for something (as Plato says) to be accomplished (περαίνει τι). And it is not odd that Plato summarizes this section of the Sophist by saying that a logos must both be about something and misrepresent the connection between things, in order for there to be false discourse. But whereas for Plato the first of these conditions is necessary, Aristotle seems to take it as sufficient. In his discussion of things said with combination it is claimed that, in some cases when the subject does not exist, the statement is false.

In the Cratylus we find the view which occasioned Aristotle's remarks on convention and the idea that one can make a claim merely by uttering a name. The theme of the Cratylus is anti-conventionalist: ". . . we already see one thing we did not know before, that names do possess a certain natural correctness, and that not every man knows how to give a name well to anything whatsoever" (391a-b). Names are said to be instruments (388c), a view which Aristotle rejects in de Interpretatione. But what is relevant to our purpose is the emergence in the Cratylus of the view that (1) names are true and false; (2) names are imitations or likenesses; and (3) the smallest unit of meaning is the letter (431-433). Aristotle, of course, rejects these views. But knowing that, we are not, to borrow an image, in the position of the gambler who looks for a steady loser so that he can bet on red when the loser bets on black. There is more than one way to win or lose, so to speak, and since Aristotle's reply to Plato makes,

at best, for a stalemate, the better analogy would be with chess. I shall now proceed to consider Aristotle's view, hoping that this brief account will make it easier to see the point of his remarks that to say something true or false is to combine things.

On first reading chapters two and four of the Categories it may appear that by "things said" (ta legomena) Aristotle means words, phrases, and sentences. He is often taken to mean just this. H. P. Cook translates the first sentence of chapter two as follows: "We may or may not combine what we call words, expressions, and phrases."* Ackrill uses inverted commas around the examples Aristotle gives of things said. But a few lines further on in this chapter we find the following: τῶν ὄντων τὰ μὲν καθ'ὑποκειμένου τινὸς λέγεται. Ackrill renders this quite literally: "Of things there are . . . some are said of a subject . . . ." There is then a contrast between things said and things there are. But by "something said of a subject" Aristotle does not mean an expression, for things said of a subject are coupled with things present in a subject, and these are clearly not expressions. In fact, some things are both said of and present in a subject.

A difficult text in this connection is De Anima III, 6, 430b26-29: ἔστι δ'ἡ μὲν φάσις τι κατά τινος, ὥσπερ ἡ κατάφασις, καὶ αληθὴς ἡ ψευδὴς πᾶσα. Hamlyn translates this as follows:

> Every assertion says something of something, as too does denial, and is true or false. (P. 62).

---

*Aristotle, The Categories, On Interpretation, trans. Harold P. Cook, Prior Analytics, trans. Hugh Treddenick (Cambridge, Mass.: Harvard University Press, 1938).

In his notes on this passage he says that

> I have accepted the substitution of 'denial' (ἀπόφασις --apophasis) for the 'affirmation' (κατάφασις --kataphasis) of the MSS. The original reading might be accepted if we could interpret φάσις (phasis--here translated as 'assertion') as a generic notion like that of 'proposition'. (P. 145).

One text where phasis and kataphasis are distinguished is Metaphysics IX, 10, 1051b22-26. Aristotle is there discussing truth and falsity with respect to incomposites, and says that

> as truth is not the same in these cases, so also 'being' is not the same; but . . . truth or falsity is as follows --contact and assertion [φάναι] are truth (assertion [φάσις] not being the same as affirmation κατάφασις), and ignorance is non-contact.

Here one must understand phasis so as not to involve saying something of something; that is just the point of distinguishing phasis and kataphasis. For kataphasis is appropriate only with respect to what is compound; phasis to what is not compound. If the De Anima text is to be changed, therefore, apophasis should replace phasis, not kataphasis. The point of the passage would then be that while affirmation and denial involve combination, and, hence, truth or falsehood, not every thought is such. For it is possible to think of what a thing is, concerning τὸ τί ἦν εἶναι, and this does not say something of something.*

While I do not hope to resolve all the difficulties commentators have raised about the passages discussed above, I do think it is clear that the distinction between things said with and without

---

*The essence of a thing is an undivided object about which there can be no falsity (430a26); cf. Poetics, 20, 1457a24-30, where Aristotle notes that a logos may be without a verb, as in the case of the definition of man, and that logoi are said to be one in two ways: either as signifying one thing or by conjunction.

combination serves not to remedy a problem about meaning or reference, but rather to correct a mistaken theory about truth and falsehood. It is not names alone nor verbs alone that are the bearers of truth and falsehood, as the Cratylus argues. Truth and falsehood are not the products of every case of saying something, but only of those cases of saying Aristotle calls "affirmation" and "denial." If it is true, as Moravcsik and others suggest, that what is combined in an affirmation are expressions, then Aristotle is left with the residual problem of accounting for the difference between mere lists of words and genuine claims. One cannot help but agree with the Kneales, who say in their book, The Development of Logic, that Aristotle, "like others who have made logical discoveries of the first importance . . . is somewhat impatient of the philosophy of logic; it is too troublesome to be really clear about the preliminaries."* But they too, with some reservation, claim that, for Aristotle, sentences are the bearers of truth and falsehood.**

I hesitate to adopt this view because it suggests that Aristotle asked himself whether sentences are true and false, or something else, e.g., judgements and propositions. Further, in the first chapter of de Interpretatione, he does say that thoughts are true and false, and implies that what one's words signify--not the words

---

*William Kneale and Martha Kneale, The Development of Logic (Oxford: The Clarendon Press, 1962), p. 46.

**Geach, Reference and Generality, p. 23, also criticizes Aristotle for carelessness about the fundamentals: "Aristotle and Russell have fallen into almost inextricable confusions, so that you just cannot tell whether a predicate is something within language or something represented by means of language."

themselves--are true and false.* So rather than saying that when words are combined, they are like combined thoughts, and the words become true or false, I am inclined to say that, according to Aristotle, when the proper words are combined, something which is said is either true or false. First, because of the tradition reflected in the Sophist and Cratylus, Aristotle wants to deny that one can say something true or false just by uttering a name or a verb. He is so opposed to this view, in fact, that he says in chapter five of De Interpretatione that one does not make a statement or reveal anything (say something in the full sense of "say," as Austin might put it) by uttering a name either in answering a question or speaking spontaneously. He does not consider the possibility that a single word answer might be elliptical for something said with combination. Secondly, "what a person said" can sometimes mean the words a person uttered, as in a request for a quotation, and sometimes not a person's words at all, but his statement or claim. It is commonplace these days to hear these senses of "what someone said" confused, but these days philosophers distinguish quite sharply sentences from propositions (even though this distinction is not without its own problems). Aristotle's "logos" is extremely vague by comparison, and certainly does not typically mean "sentence" as in "sentences are the bearers of truth."

In the opening remarks on falsehood in his lexicon, Aristotle says nothing to suggest that what is false (or a falsehood) is a sentence. Rather, he says that

> we call a falsehood, in one sense, what is a falsehood as an actual thing: and this sometimes from the thing's

---

*de Interpretatione I, 16a9-16a18; cf. Met. VI, 4.

> not being compounded, or incapable of being compounded, as we say of a diagonal's being commensurable or of your sitting down--for one of these is a falsehood always, the other sometimes (for in this way these things are not things-that-are) . . . .*

In saying that "one of these is a falsehood always," Aristotle does not mean the sentence, "The diagonal of a square is commensurable," but rather the thing: the diagonal's being commensurate. Now the thing, the diagonal's being commensurate, is not compound and, hence, is not a thing-which-is. This suggests that, at least in some cases, "thing-which-is" is shorthand for "thing-which-is-compound," or "thing which is united." In the present case the compound thing is composed of diagonal and commensurate. To combine or compound things, then, is to predicate one thing of another.** Thus, Aristotle says that

> 'to be' and 'is' signify that a thing is true, and 'not to be' that it is not true but a falsehood, equally in the case of affirmation and of denial . . . .***

This passage has been taken**** to mean that Aristotle thinks that "is" and "is true" have the same meaning, and that his examples fail to make a case for this. In his commentary on this passage, Ross holds that

> the cases in which being means truth and not-being falsity are distinguished both from the accidental and from the essential sense of being. Evidently then an ordinary sentence of the type 'A is B' can hardly be used to illustrate this third sense, since it must be an

---

*Met. V, 29, 1024b17-22. The other senses will be discussed below.

**Note that Aristotle says in Prior Analytics I, 27, 43a25-43, that predicables are things (onta), not expressions.

***Met. V, 7, 1017a31-34.

****Kirwan, Aristotle's Metaphysics, p. 146.

> instance of either the essential or the accidental sense. What we want is a proposition in which the truth or falsity of another proposition is stated, and such propositions we find in those of the form 'A is B,' 'A is not B,' where the ordinary proposition 'A is B' is pronounced true or false. That this is what Aristotle has in mind is indicated by the emphatic position of ἔστι, οὐκ ἔστι in II, 33-35.*

An obvious objection to this argument is that there are no subordinate clauses in the examples. As Kirwan notes, "where we should expect 'it is (the case) that Socrates is artistic,' etc., we have merely 'Socrates is artistic,' etc., with the 'is' (or 'is not') emphatically placed at the beginning."** Another interpretation, one which squares better with the remarks on "falsehood" in the lexicon, is suggested by the following:

> The terms 'being' and 'not being' are employed firstly with reference to the categories, and secondly with reference to the potency or actuality of these or their non-potency or non-actuality, while being and non-being in their strictest sense are truth and falsity. The condition of this in the objects is their being combined or separated, so that he who thinks the separated to be separated and the combined to be combined has the truth, while he whose thought is in a state contrary to that of the objects is in error.***(my emphasis)

In this passage, truth is paired with being and falsehood with non-being. 'Being' is then spelled out as 'being combined' and 'non-being' as 'not being combined' or 'separated.' A false object, then, is one which is separated, not combined, and therefore not a thing-which-is. Now if things are said to be true and false, and a false thing is one which is

---

*W. D. Ross, Aristotle's Metaphysics, I (Oxford: Oxford University Press, 1924), p. 308.

**Kirwan, p. 146. He notes that "it is (not) that . . . ." regularly meant "it is (not) possible that . . . ."

***Met. IX, 10, 1051a34-b5.

not, it would follow that a false sentence is a sentence which is not (combined), and so not a sentence at all. Those, then, who lay this thesis at Aristotle's doorstep have placed there a dogma which, like an unwanted child, will surely die from exposure.

Notice that in our passage Aristotle says that truth arises in thought (and presumably in speech) when what is thought to be divided is divided and what is thought to be united is united. As can be seen from the remarks which follow, he thinks that truth and falsehood reside primarily in objects. He asks "when is what is called truth or falsity present, and when is it not?" He must think that this question is in place because, holding that a false object is one that is not, there would be nothing of which one could say, "This is false." That is, there would be no occasion to speak of what is false. On the other hand, since he has explained that thoughts are true or false depending on whether or not they correspond, with respect to separation and combination, with objects, he next wants to forestall the conclusion that truth and falsehood arise only when something is thought or said to be the case. He goes on to say,

> It is not because we think truly that you are white, that you <u>are</u> white, but because you are white we who say this have the truth (1051b7-10).

Truth is present (something is true when) something is combined, not merely when something is thought or said to be combined: thinking does not make it so.* Another way of putting this would be to say that the thought or claim that S is P is true when S is P. Not: S is P when it is true to say or think that S is P. This is a generous interpretation,

---

*Cf. <u>De Anima</u> 431b10-12.

however, for Aristotle's question is muddled in the first place. Since both things, on the one hand, and thoughts and claims, on the other, are called true and false, there can be no simple answer to the question, "When is what is called truth and falsity present, and when is it not?" Furthermore, it is odd to ask when something is true in the first place. Aristotle takes this question to mean, "When is the opinion or claim that S a true one?," and says that it is true when S:

> regarding contingent facts, then, the same statement comes to be false and true, and it is possible at one time to have the truth and at another to be in error; but regarding things that cannot be otherwise opinions are not at one time true and at another false, but the same opinions are always true or always false. (1051b13-17).

The question, "When is truth present?," if taken to be a question about things, may be understood as the question, "When are things combined?" And now the answer will be "sometimes," "always," or "never." Recall that the original equation was between being and truth; it is now expanded:

> 'being' is being combined and one, and not-being is being not combined but more than one . . . . (1051b13-14).

The claim that Socrates is pale is true if Socrates and pallor are combined, i.e. if Socrates' being pale is a unity. But if the claim that Socrates is pale is false, then Socrates and pallor are not combined, i.e. Socrates' being pale is not a unity, not a thing which is, but a plurality. However, if Socrates' being pale is not a unity, then what is it (what is that one thing) that is false? Aristotle has retrogressed to the position which troubled Plato: there can be nothing which is false. One thing is clear, however. Whether we take "what someone said" to mean a sentence or a claim, to say that what was said is true

is not just to say that something was said with combination; that is sufficient only for the production of an affirmation or a denial. Aristotle denies that something is true (combined) because it is truly said to be combined. That he speaks of "the false" as a plurality or a thing which is not combined shows that it is not only things said and thought which are false. In the same spirit, Aristotle's notion of opposition cannot be rescued from the difficulties I have raised by an appeal to thoughts and claims. For claims will be contrary (not possibly both true) only if certain things cannot be combined.

This comes out very clearly in chapter ten of the Categories:

> Nor is what underlies an affirmation or negation itself an affirmation or negation. For an affirmation is an affirmative statement and a negation a negative statement, whereas none of the things underlying an affirmation or negation is a statement. These are, however, said to be opposed to one another as affirmation and negation are, for in these cases, too, the manner of opposition is the same. For in the way an affirmation is opposed to a negation, for example 'he is sitting'--'he is not sitting,' so are opposed also the actual things underlying each, his sitting--his not sitting. (10, 12b6-16).

Contraries and o-Expressions

There is another place in the Categories where one is made to grasp this nettle, and it, too, concerns contraries. In the fifth chapter, Aristotle, claiming that substance is the only thing which, being numerically one, is able to receive contraries, considers two examples to make his point:

> For example, a color which is numerically one and the same will not be black and white, nor will numerically one and the same action be bad and good; and

similarly with everything else that is not substance. *

These remarks may help to provide clues for what is to count as an instance of something which is numerically one, but not in the category of substance. A color which is numerically one will not be leukon kai melan: "black and white" in Ackrill's translation but preferably "light and dark" since this is an acceptable rendition but does not make the case trivial. If numerically one color cannot be light and dark, then, one might say, the color red will not count as numerically one thing since red is said to be both light and dark. For example, we can say that both of two houses are red, though one is light and the other dark. Again, if I tell you that something is red it is an open question whether it is light or dark. So by "numerically one color" Aristotle must mean something like an individual instance of the color red or what might now be called a token occurrence of the color red.

But these remarks miss an important point: the color red is neither light nor dark in the sense that a house is light or dark. To say that red is a dark color is to say that it has a certain place on a color chart or to compare it with the other colors with respect to lightness and darkness. It cannot change in this respect and remain the color it is for, then, such a comparison would be impossible. In this sense it is either light or dark, relative to the other colors, and cannot change. On the other hand, one who is asked whether the color red is light or dark might want to say that it is neither, paying attention to the many shades of red there are and noticing that some are light and some are dark. He may also say that red is a color, but does not have a

---

*Categories V, 4a10.

color, so that it is not dark but, rather, is a dark color. And this seems to be the result to which one is led by Aristotle's remarks in the Posterior Analytics:

> Predicates not signifying substance which are predicated of a subject not identical with themselves or with a species of themselves are accidental or coincidental; e.g., white is a coincident of man, seeing that man is not identical with white or with a species of white, but rather with animal, since man is identical with a species of animal. Those predicates which do not signify substance must be predicates of some other subject, and nothing can be white which is not also other than white. *

When I say that something is dark I may be saying that

(a) it is of a dark color or darkly colored; or

(b) it is a dark color.

In the first case, since what is darkly colored cannot itself be a color, the predicate is accidental. In the second case, the predicate is essential and the subject of which it is predicated cannot receive the contrary predicate. If the predicate is accidental, the subject may receive a contrary predicate, but then the subject would not be a color. So a case like (a) is not a proper instance of Aristotle's example. Only cases like (b) will do, but there the predicate is essential and the subject cannot receive a contrary predicate. So, since in no case can a color be both light and dark, the example is not helpful towards settling a controversy over what Aristotle means by "numerically one color."

For my purposes, the larger question concerns what is to count as a contrary, the element involved in change. Aristotle's

---

*183a24-32. Cf. also J. Engmann's discussion of Posterior Analytics I, 22, 83a1-18, in "Aristotle's Distinction Between Substance and Universal," Phronesis XVIII, No. 2 (1973), pp. 139-155.

paradigm is the case of a man changing from dark to light, a case involving something in, but not said of, a subject. The light color in Socrates is said to be individual and one in number, but the Categories does not provide a means of establishing what it is to say this.

In a passage in the Topics, where Aristotle introduces the categories, he draws a parallel between the categories of substance and quality which is thought to support Ackrill's view:*

> . . . the man who signifies something's essence signifies sometimes a substance, sometimes a quality, sometimes some one of the other types of predicate. For when a man is set before him and he says that what is set there is 'a man' or 'an animal,' he states its essence and signifies a substance; but when a white color is set before him and he says that what is set there is 'white' or is 'a color,' he states its essence and signifies a quality. Likewise, also, if a magnitude of a cubit be set before him and he says that what is set there is a magnitude of a cubit, he will be describing its essence and signifying a quantity. Likewise, also, in the other cases . . . .**

Just as a man can be set before one and have said of it what it is, so Aristotle says that a white (or light) color can be set before one and have said of it what it is. This parallel is taken to show that by to ti leukon he means "this white" or "the white in this substance," since only an individual could be set before someone in the way specified. To this it may be replied that the individual whiteness can no more be set before someone than the color white, a universal. Since, on Ackrill's view, the whiteness inherent in a substance is identifiable only as the whiteness of that substance, there is no way to distinguish setting the whiteness of the thing before someone and setting the

---

*Mary Richardson, University of Alberta, pointed this out to me.

**Topics I, 9, 103b27-35.

substance which is white before someone. And pointing out that, according to Aristotle, colors are among the per se objects of vision will lend comfort to neither Ackrill's nor Owen's view. Finally, though Aristotle does show in the Topics passage that it is not a substance, but a color, which is said to be white, such that the answer to the ti esti question is "a quality," this does not itself show how the subject, a color, is to be understood.

For the present these passages will remain controversial; it was not, however, fruitless to consider them: standing before a smorgasbord, one is at least in a position to try things out. What is unfortunate, perhaps, is Aristotle's apparent failure to disarm Platonic worries in a straightforward way. Indeed, the whole of the Categories is obscure concerning its aim. Though there is fairly widespread agreement that it can properly be called a discourse on what there is, at the same time there is no agreement about what it is to discourse on what there is. For example, there is dispute about whether entities or predicates are classified into categories, and one author rightly notes that

> if we are to learn anything from recent (and ancient) philosophy, it is the extraordinary evanescence and lubricity of the distinction I have so cavalierly invoked between what we say and what is. But that lesson, well rehearsed, should lead us to recognize as misconceived the question with which we began. For to ask whether the categories classify reality or classify discourse is just to ignore the fact that distinctions of this sort vanish at fundamental levels of philosophical inquiry. (A great part of Aristotle's appeal to current philosophers may be that such a question would have seemed odd to him as well, suggesting as it does that metaphysics is a radically different enterprise from that of enquiring (philosophically) into what we say about the world, inquiring, as Aristotle's predecessors

might have said, after its (our) logos.*

It is clear that Aristotle believed there was a distinction in what we say and what there is which could be captured, with reference to change, by his distinction between genesis and qualitative change. This distinction, in turn, is dependent upon the difference between substance and the other categories. These distinctions then come into play with regard to the thesis that, in general, change is to be accounted for by opposites and an underlying thing. For the nature of these elements will, presumably, differ depending on which sort of change is in question. So, while the immediate focus of the present discussion has been on a few passages from the Organon, I wish now to expand its scope in order to get a broader view of Aristotle's ideas about "what there is" in order to render more intelligible particular questions about his theory of change.

Contraries, then, are not thought by Aristotle to be claims which are opposed, but are rather things which underlie claims and which are themselves opposed. They do not, therefore, get their life from the fact that people make claims which are contrary to one another, but rather make that sort of activity possible. Their importance in Aristotle's (perhaps premature) estimation is notable,** particularly in the following remarks from Book IV of the Metaphysics:

> . . . nearly all thinkers agree that being and substance are composed of contraries; at least all name contraries as their first principles--some name odd and even, some hot and cold, some limit and the unlimited, some love and strife. (1004b29-34).

---

*Aryeh Kosman, "Aristotle's First Predicament," p. 485.

**See, e.g. Met. IV, 1004b1; III, 995b21.

It is anachronistic of Aristotle to speak of substance here, because the doctrine that everything is composed of contraries is inconsistent with the categorial distinctions he draws between substance and the rest. Even if the presocratics had a notion of substance, it would more than likely have been Lockean rather than Aristotelian, for it is only the contraries (in Locke, the ideas) which really exist.

There can be no doubt that Aristotle himself distinguished between something's being composed of contraries and something's having a property which is the contrary of another.* For this reason, Elders takes the Metaphysics text just quoted to be early.** While he makes out a compelling case for this claim, it will do for my purpose to show that there is a development in Aristotle's account of contrariety. The text in the Metaphysics goes on as follows:

> And everything else is evidently reducible to unity and plurality (this reduction must be taken for granted), and the principles stated by other thinkers fall entirely under these as their genera. (1004b34-1005a2).***

The spirit of this reductionism is certainly Ionian, and while there are different lists of basic contraries (see, e.g. Topics I, 14), Aristotle, in another place (Metaphysics XIV, 1, 1088b4 ff.) argues that "the one" and "the many" cannot be elements because no element is predicable

---

*See Aristotle, Fragments, p. 111 (Simp. in Cat. 388. 21).

**L. Elders, Aristotle's Theory of the One: A Commentary on Book X of the Metaphysics (Assen: Van Gorcum and Co., 1960), pp. 43 ff.

***Joseph Owens, in The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Medieval Thought, 2nd ed. (Toronto: P.I.M.S., 1951; rev., 1963), p. 278, says that "the Stagirite shows how the contraries are reduced . . . to the fundamental pair, the One and Plurality." But Aristotle does not even argue for this, much less "show" it.

and these are, and argues that "it is strange, then, or rather impossible, to make substance an element in, and prior to, substance . . . ." The view that contraries are constituents of things is criticized in several places,* but there are also several passages in which contraries are held to be reducible to a single pair.**

There are at least two kinds of reductionism. In the one case it is said that one can dispense with talking about one sort of thing (e.g. mental events) in favor of talking about another sort of thing (e.g. brain processes).*** In the other case it is said that one sort of thing really exists or is ontologically basic (e.g. primary qualities) while some other sort(s) of thing does not exist at all or has a kind of dependent existence (e.g. secondary qualities).**** Presocratic reductionism is of the second type; it is helpful to see them asking the question, "What really exists?". Aristotle is less clearly of the second sort, but does hold in some places that substantiality has to do with independence, though sometimes this is not so clearly ontological dependence.*****

---

*Met. XII, 10, 1075a28-34, 75b20 ff.; De Anima III, 6.

**Met. IV, 2, 1004b28; X, 4, 1055b26; XIV, 1, 1087b4 ff.

***Stuart Hampshire, "Identification and Existence," claims that "in the familiar terminology of empiricism, we require that subject terms, or substantival expressions, which cannot themselves be said to stand for something plainly identifiable, should be reducible to substantival expressions which do stand for something plainly identifiable" (p. 198). In this essay he defends a version of the M-thesis (see above, p. 3).

****See Aristotle's claim about simple bodies at Met. V, 7, 1017b10-14.

*****See, e.g., Categories 6, 6a10 ff. on "above" and "below."

For given the categorial distinctions employed in that work, it no longer makes sense to suppose that everything is composed of contraries. Contrariety is made genus-relative, and contraries are there said to belong to a subject. At Categories 4a10, substance is said to be that which, while numerically one, is able to receive contraries. A sharp line is there drawn between substance and those things which are either said of or inhere in them. But this is not meant to imply that it is only of substances that one can ask, "What is it?". As Anscombe has noted:

> If we start by distinguishing between what things are and (the various kinds of) how they are, we find that we want to speak of what (such and such a case of) how they are is. E.g. what Socrates is, is a man; how he is, is in good health; but may we not want to say what health is? (cf. Met. Z 1031a8-14).*

Just as we can say what Socrates is, saying he is a man, Aristotle thinks we can say what a white color is, saying it is white or a color.** The purview of the "What?" question is thus expanded, and the distinction between substance and contraries is blurred.

To see to what extent the distinction is blurred, and to help to bring into focus just what is at stake here, it will be useful to turn to a passage in Plato's Philebus in which Socrates is discussing opposites:

> Socrates: The matter which I request you to attend to is difficult and controversial, but I request you nonetheless. Take 'hotter' and 'colder' to begin with, and ask yourself whether you can ever observe any sort of limit attaching to them, or whether these kinds of things have 'more' and 'less' actually resident in them, so that for the period of that residence there can be no question of suffering any bounds to be set . . . . And

---

*Anscombe, Three Philosophers, p. 34.

**Topics I, 9, 1033b30-33.

> in point of fact 'more' and 'less' are always, we may assert, found in 'hotter' and 'colder' . . . this 'strongly' that you have just mentioned, and 'slightly' too, have the same property as 'more' and 'less.' When they are present in a thing they never permit it to be of a definite quality.*

Here is the point that opposites admit of a more and a less, of being slightly and strongly, and that they "never permit it [the thing which received them] to be of a definite quantity." The point can be altered slightly so that it can be used to isolate "o-expressions" (expressions for opposites).** If we can say that, for some expression "Ø," that something is more or less Ø, then "Ø" is an o-expression. Stock examples of o-expressions are "hot"/"cold," "pale"/"dark," "rough"/"smooth." Now I want to show that an "o-expression" is never uttered in the service of saying what something is, but rather, e.g., how it is. This will then be related to Plato's contention that when opposites are "present in a thing they never permit it to be of a definite quantity."

When we say, for example, that something is hot, it is then in place to ask or to say whether it is more or less hot than something else. It is <u>not</u> to say, however, that something is of a certain temperature. It may, of course, be inferred that it is of a certain temperature, but that is quite different from having said that it is of a certain temperature.

When something is said to be hot, then, it is not (to alter Plato's phrase slightly) said to be of a definite quantity, i.e. some particular temperature. The indefiniteness may be captured by saying

---

*Plato, <u>The Philebus</u>, 24a1-25b4.

**This is due to Richard Bosley's work.

that what counts as a hot day in Edmonton will not count as a hot day in Mexico City. But this is not to say that "hot" is a vague or ambiguous word. It would only appear to be so if we think that by saying something is hot, we answer (vaguely) some "What?" question, e.g. "What is its temperature?". To say that this is hot and that is hot is not to say that they are the same in any respect, because to say that they are the same requires being able to answer "the same what?" question, and there is none in this case. It is mistaken, then, to think that one says what something is in uttering an o-expression; in Plato's language, to say that something is, e.g., hot is not to say that it is of some definite quantity. For that we need some system of measurement which then enables us, for example, to say what a thing's temperature is. But such a development will be based upon, and not a replacement for, our use of o-expressions. It is only when the former is thought to do duty for the latter that the charge of vagueness is plausible. So Plato's point about indefiniteness is misleading if it is taken generally: o-expressions are indefinite. For they appear indefinite only when their use is confused with the use of expressions like "temperature" and "red."

It is odd, therefore, to think that all change is "between contraries," for in uttering the appropriate o-expressions we would never be able to say from <u>what</u> and into <u>what</u> a thing changed. Odder still is that reduction of contraries whose locus is the <u>Physics</u> and about which Elders has noted that

> it is affirmed that all becoming must of necessity take place between two contraries (188b21). Since we do not see the contraries to be the substance of anything, we must look for a subject in which they are inherent (188a20 ff.). Since one of the contraries can account

> for change by the mere fact of its presence or absence, contrariety no longer appears to have the same importance in the process of becoming (191a5).*

The generality of the early belief that contraries constitute everything is replaced by the three "principles" of the Physics (two contraries and something which receives them) and later by two principles (form and matter).** It would then appear that all changeable things consist of form and matter. But if it is true, as Aristotle says, that contraries are not the substance of anything, how can there be substantial change?

It might well be said that Aristotle should dispense altogether with the notion that contraries are the principles of change. For by "form" he means "what a thing is," even in the expanded sense marked out by Anscombe. Yet, of the generation of things, he holds that "in general both that from which and that in accordance with which they are generated, is nature; for the thing generated, e.g. plant or animal, has a nature" (Met. VII, 6, 22-25). And by "nature" he here means "form" and "what a thing is." But that from which a thing comes to be, if it is contrary, cannot be what anything is, as I have shown. So, in holding this view, Aristotle breaks down the distinction between what I am calling "o-expressions" and what are for him "second substance words."

It will then appear (1) that everything (about which we can ask, "What is it?") will have a contrary,*** (2) that if one of a pair

---

*Elders, Aristotle's Theory of the One, p. 43.

**See also Met. V, 1013b15; VII, 7, 1032b4; Physics 195a11.

***Physics II, 2, 193b20 ff. is revealing in this respect.

of contraries exists, so must the other (De Caelo 286a22), and (3) that everything will have but one contrary (De Caelo 269a10; Met. 1055a19). The ubiquitous character of the "What is it?" question thus gives rise to the problem of substantial change and, as it will be shown, to serious difficulties in Aristotle's account of change generally.

III

CHANGE

Aristotle's Critique of Parmenides

Aristotle's aim in the Physics is to discover those principles which make it possible to have systematic knowledge of nature. He does not say that this is his aim, however, but only implies that it is. The text of the Physics opens with the following remarks:

> In all disciplines in which there is systematic knowledge of things with principles, causes, or elements, it arises from a grasp of those: we think we have knowledge of a thing when we have found its primary causes and principles, and followed it back to its elements. Clearly, then, systematic knowledge of nature must start with an attempt to settle questions about principles (184a10-15).

These remarks put Aristotle's Physics squarely into the tradition of "natural philosophy," which is usually said to have originated with Thales. But just as one is rightly wary of saying that natural philosophy was originated by any one man, so it is incautious to suppose that one could easily label what Aristotle is doing in a work so complex as his Physics. His own words suggest that he is writing with a scientific interest at stake, but even so one must remember that the lover of truth was then little concerned with marking out territories on the intellectual landscape. In any event, Aristotle quickly moves on to a discussion of Parmenides and Melissus, a discussion which, as he says, offers scope for philosophy.

Those thinkers, according to Aristotle, were not, like

himself, writing about nature. Since the study of nature is the study of things which change, and the monists argue that there are no such things, they can no more engage in the study of nature than can the man who does away with the principles of geometry study geometry. This, of course, implies that Parmenides and Melissus were engaged in a study of something else, but what that was Aristotle does not say. Nowadays it is called philosophy and is hardly seen as something quite different from the sort of thing Aristotle himself was about in the Physics. Indeed, insofar as he was interested in the concept of change, or what we can and cannot say about the phenomenon of change, he is no more a scientist than Parmenides. What makes it possible to understand most of what Aristotle says about change, and, hence, much of what is contained in his Physics and De Gen. et Corr., is the fact that he is writing in response to a problem he takes to have been fathered by Parmenides himself. So if one wants to know the lineage of Aristotle's work, one pays close attention to his remarks about the monists, and does not, as Aristotle himself does, see them as a mere diversion.

For what problem is there about change? Aristotle himself says that "we (phusikoi) may take as a basic assumption, clear from a survey of particular cases, that natural things are some or all of them subject to change" (185a13-14). Whatever it may be to "assume" that there are things which change, Aristotle's problem is apparently not whether there are such things.* Rather, he is asking the time honored τὶ ἔστι question. In its most general form in this

---

*Cf. G. S. Kirk, "Sense and Common Sense in Philosophy," Journal of Hellenic Studies, LXXXI (1961), pp. 105-117.

context it is the question, "τὶ τὸ ὄν," but he is, in particular, concerned with those "things which are" that are things which change.

Just what is his concern? According to Aristotle, Parmenides, as well as all the students of nature (187a33), believed that it is impossible for what is to come to be from what is not. This led some of them to hold that what is must come to be from what is. The atomists, for example, are pictured as denying that there is what Aristotle calls change in the category of substance: "everything comes to be out of things which already exist and are present, but cannot be perceived by us because they are extremely tiny" (187a35). Parmenides is, at least, a partial victor in this case, since it is agreed that what is cannot come from what is not.

The crux of this matter is the principle that "everything which comes to be must do so either out of what is or out of what is not." According to Aristotle, this was the stumbling block Parmenides left in the path of natural philosophy, and it so tripped up thinkers after Parmenides that they were all driven off course (191a30). It is fairly easy to see why this was so. If something comes to be, it must come to be from something or from nothing. Or, if we may borrow from Plato, it must come from something which is or from something which is not.* If the latter alternative is tried out, the result is that what is, is said to come from nothing. But this is tantamount to saying that it does not come from anything at all. So it is not a thing which came to be. On the other hand, if it came from what is, there then seems to be something from which it came. But since, ex hypothesi, its origin is

---

*Cf. Plato, The Republic, V, Collected Dialogues, 476a ff.

said to be a thing which is, it did not stand in need of coming to be: it already was a thing which is. So if there was coming to be, it could not have been a case of coming to be a thing which is. On this account, 'Parmenides' principle' makes coming to be either an impossibility or an ontological stutter.

Aristotle would have been well advised to reject this principle altogether. Instead, he qualifies it in the hopes that it will be rendered harmless. He must have thought that it has the ring of truth to it, but that it is dangerous all the same because it leaves the door open to sophistical argument. At least, he treats Melissus and Parmenides as if they were merely bad thinkers: "both reason invalidly from false premisses" (185a7). But they obviously succeeded in making the weaker argument appear the stronger. In an unqualified form, even the Law of Excluded Middle is open to sophistical trickery. And in both cases, Aristotle accepts the principle in question, but with certain addenda.

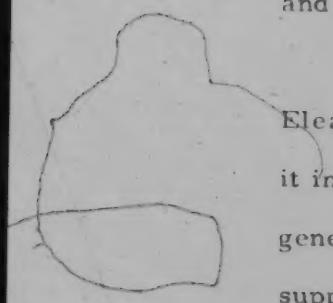
This is extremely important, I think, because it shows (or can be made to show) that Aristotle's solution to the Parmenidean paradox will not mark a radical departure from the tradition he inherits. It is now commonplace to see Plato's footprints in the shifting sands of Aristotle's metaphysics, but I maintain that anyone who combs the beaches where Parmenides' theory is supposed to have wrecked will find that a lot of the goods were left intact.

The bulk of Aristotle's criticism of Parmenides in the Physics concerns the claim that all things are one. To criticize this central monist tenet is not to come face-to-face with the Parmenidean argument that directly affects Aristotle's account of change, but it is

important to examine it carefully all the same: it is the crux of Eleatic Monism; Aristotle's attack upon it does much in the way of helping us to see how Aristotle understood the Eleatic view. It will also afford an insight into the tactics Aristotle uses against Parmenides.

Aristotle begins by saying that "the most appropriate way of all to begin is to point out that things are said to be in many ways, and then ask in what way they mean that all things are one" (185a20). This gets spelled out in terms of the Categories doctrine that to say that something is, is to say that it is a substance, a quality, a quantity, or an item in one of the other categories. Seen in this light, the remark that something is invites the question, "What is it?" So to say, as Aristotle takes Parmenides to have said, that being is one, is to invite the question, "Being is one what?" Just so, Aristotle asks (185a23) whether the Eleatics mean "that everything is one single reality, as it might be one single man, or one single horse, or one single soul, or, if all is quality, then one single quality, like pale, or hot, or the like?" This shows that Aristotle takes a claim of the form, "S is one," to be an incomplete claim, standing in need of an answer to the question, "One what?" That he takes this to be an established truth can be seen from his criticism of these "suggestions" which he takes to be "all very different and untenable" (185a25). If what is includes things from several categories, then there will obviously be more than one thing: the categories are categories of irreducibly different kinds of things. If, on the other hand, "everything is either quality or quantity, then whether there is also reality or not, we run into absurdity, if, indeed, impossibility can be so called.". The absurdity in question flows from one of the central tenets of the Categories doctrine:

"Nothing can exist separately except a reality; everything else is said of a reality as underlying thing." Finally, if the Eleatic should claim that what is is one substance, then Aristotle can ask, "Of what sort?" That is, a substance is necessarily a substance of some sort, where the sorts of substance are specifiable in terms of second substance. So a unity of this kind would have to be one man, or one horse, etc., and Aristotle rightly takes this to be a patent absurdity.



Before taking a more careful look at this critique of Eleatic Monism and the rest of Aristotle's arguments which accompany it in chapters two and three of Physics I, it is worth noting several general points. Aristotle's remarks are extremely concise and presuppose some acquaintance with his metaphysical views. He argues like a man with a large critical arsenal at his disposal and we may take this to lend credence to W. Charlton's dating:

> Physics I-II contain the formal introduction of a number of the basic concepts in Aristotle's philosophy: the matter-form distinction, the fourfold classification of causes, nature, and finality. For this reason, and because we are refered back to them by Met. A (983a33f., 986b30-1, etc.), generally held to be an early work; an early date of composition has been assigned to them. Thus, according to Ross, 'we may say with some confidence that these two books were composed while Aristotle was still a member of the Academy' (p. 7). On the other hand, precisely because they seem to constitute the natural introduction to his other surviving works, we may think that as they stand --though they may incorporate the fruits of early speculation (M. Untersteiner suggests that Phys. I. 8-9 are taken from the early De Philosophia)--they are the notes for lectures which were being delivered up to the end of Aristotle's career.*

I shall follow Charlton in freely using passages from other works to

---

*Charlton, "Introduction," Aristotle's Physics, pp. xii-xiii.

elucidate texts in the Physics, whenever this is possible.

The tone of Aristotle's criticism of Parmenides and Melissus suggests that he has no respect for their views. Indeed, he says that the dull and obvious Melissus need be granted only one absurdity and the rest will follow. All the same, Aristotle does not ignore them. In fact, he draws out his big guns, so to speak, in his frontal attack against them. This is, perhaps, because, in spite of his belief that the views of his predecessors ought to be incorporated into his own when they can, there is just nothing in monism that he finds palatable. So he must justify his rejection of it, even though it is clearly wrong-headed and involves an activity much like exposing a quibble.

The criticism of Parmenides and Melissus has been divided, by D. E. Gershenson and D. A. Greenberg* into two arguments, the first of which, they argue, is undertaken on Aristotle's terms, while the second proceeds by arguing from an Eleatic point of view. They contend that the first runs from 184b25 to 186a32, but I will follow Charlton in including 186a22-32 with what follows (186a32-187a11) because "it explains why the monist thesis has to be reformulated."

The criticism begins, then, with the claim that is it not the job of the phusikos to treat the question whether what is is one and unchangeable. Aristotle here makes a misleading comparison between the phusikos and the geometer, arguing that just as a man who does

---

*D. E. Gershenson and D. A. Greenberg, "Aristotle Confronts the Eleatics: Two Arguments on the One," Phronesis, VII (1962), pp. 137-151.

away with the principles of geometry cannot be addressed by the geometer, so the phusikos cannot address himself to the claims of the monist. This suggests that the phusikos, like the geometer, is arguing from principles which he assumes true to conclusions which they entail. In this sense, we can speak of a "geometrical method." But there is no parallel "physical method" which Aristotle follows in the Physics, and the things which constitute the subject-matter of his investigation are in no sense hypothetical entities. If Aristotle can be said to have a method, it is dialectical and not scientific, as the analogy with geometry suggests. A difficulty arises here, however, because of the peculiarities of the word, "principle" (ἀρχή). "Principle" nowadays suggests, in a philosophical context, that one has a rule or law-like statement in mind. But Aristotle says that Parmenides and Melissus held that there is one, unchangeable principle while the physicists that there were more than one and that they were changeable. He also notes that Democritus held that the principles were the same in kind, differing only in shape: a clear reference to his "atoms." So "element" might be less misleading in this context or, better yet, the rather cumbersome phrase which Owen uses, viz., "existent thing." Aristotle is contrasting the phusikoi, who believed that there are many existent things, with the monists who believed that what exists is one.

The difference between the phusikos and the geometer seems greatest just at what Aristotle would call the beginning points of their respective inquiries. It makes some sense to imagine that the geometers begin by assuming the existence of points, lines, and planes, though better, perhaps, to say that they assume that these things have

certain properties. Better yet, what they do is not so much to make an assumption that something exists or is the case, but rather to lay it down or postulate that these things exist or have certain properties for geometrical purposes. Given certain basic truths, or given that lines, points, and planes have certain properties, other truths follow. Geometry is a deductive science, and its very procedures provide a way for saying what counts as basic or elemental. But what Aristotle is doing in his Physics (I will follow the common practice of calling it "philosophy of nature" or "natural philosophy") is not a deductive science and does not proceed from axioms and postulates. He starts from "things which are less clear by nature, but clearer to us, and move(s) on to things which are by nature clearer and more knowable." For example, in Physics I, 7 he begins with what we say about a man becoming musical in order to go on to establish general truths about the role of form and matter in coming-to-be. What is less clear to us are the elements; what is more clear are the things composed of them. They are as clearly objects of our experience as the Eleatic arguments are invalid, and so there is no reason to assume that they exist.

Furthermore, what kind of "survey of particular cases" could make clear the "basic assumption . . . that natural things are some or all of them subject to change." What would be the point of such a survey, and what would the particular cases surveyed be cases of? If they were cases of things changing, then a survey would not make it reasonable to assume that there are such things, for the taking of the survey would presuppose the existence of such things. And the same sort of point holds true if the items surveyed are particular cases of talking about things changing.

In light of this, the most favorable reading of Aristotle's remark would be to take him as saying that natural philosophy presupposes, but does not establish, that there are many changing things in the world. Were his enterprise less philosophical than it is, he could then criticize the Eleatics as he does. Since it is the business of philosophers to challenge such presuppositions and refute errors about them, Aristotle is not departing from his course when he replies to Parmenides. He simply makes it possible to go on with his task without any fear of the accusation that it is a non-starter.

The first section, then, of his criticism of the Eleatics is taken up with the point that things are said to be one in many ways. Above, I began to spell this out a bit in terms of his own account in the Categories. This may appear misguided, however, since he goes on, a few lines later (185b6-10) to say that

> Again, as things are said to be, so they are said to be one, in many ways; so let us see in what way the universe is supposed to be one. A thing is called one if it is a continuum, or if it is indivisible, and we also call things one if one and the same account is given of what the being of each would be: so, for instance, wine and the grape.

Here, the claim that there are many ways of being one is not, apparently, to be understood in terms of his Categories, but rather in one of the following ways: (a) a thing is one if it is a continuum; (b) a thing is one if it is indivisible; (c) a thing is one if it is one in form (see 190a16-17).

Aristotle's point is not that it is elliptical to say that the universe is one, but rather that there are different reasons why something might be called one. He is asking the Eleatics, "Do you say that the universe is one because it is a continuum, or because it is

indivisible, or because only one account of the form of whatever exists can be given?" This question grants too much to the monist, for it presupposes that the monist's claim that the universe is one makes sense. Charlton takes the initial point to be concerned with ways of being, and the second with ways of being one, while I take Aristotle to be invoking two different senses of being one. In favor of Charlton's view is the fact that Aristotle initiates this line of criticism by saying that one first points out that things are said to be in many ways, and then one asks "in what way (the monists) mean that all things are one." On the other hand, I do not think that this claim and question can be so neatly divided as Charlton thinks.

For to say that something is, in this Aristotelian formula, is to say that it exists, or that it is one thing. And the "ways of being" are just as well construed as "ways of being one thing."* On this view, when Aristotle asks whether the monists "mean that there is nothing but reality, or nothing but quantity or quality," his question is made appropriate because the monist claim that "what is is one" is taken as elliptical for the claim that "what is is one substance" or "what is is one quality," etc. Then if, for example, the answer is that "what is is one substance," Aristotle can ask the next question: "And do they mean that everything is one single reality, as it might be one single man, or one single horse, or one single soul, or, if all is quality, then one single quality, like pale, or hot, or the like?" There is no suggestion in the text that Aristotle has in mind by his claim that "things are said to be in many ways" the four "types of ground on which the same

---

*Cf. Met. IV, 1003b26 ff.

expression may be applied to different things" which Charlton lists. Instead, he straightaway invokes the notion of the Categories to spell out his point in this part of the Physics.

Nevertheless, there is a difficulty with the text. Why, if Aristotle is right in the first place in holding that the monist tenet that "what is is one" is an incomplete claim, does he go on to say that "as things are said to be, so they are said to be one, in many ways." Here he is making the point that there are different grounds for saying that a thing is one, and asking the monist to specify which of the grounds obtains in the case of the universe. This is a peculiar move for two reasons. In the first place, Parmenides makes it clear that he believes that the universe is indivisible. Secondly, and more importantly, the monist is in no position to say that what is is one because it is indivisible, unless he can provide an answer to the question, "Is it one substance or something else?" Knowing whether something is indivisible or not presupposes knowing what sort of thing it is, where the sort of thing it is is specified by saying that it is a man, or a color, or that it is an item in one of the other categories. So Aristotle's question about the grounds for saying that the universe is one presupposes that the monist has made clear what sort of thing the universe is.

In chapter three of the Physics, after having exposed the "patent fallacies" of Melissus, Aristotle says that Parmenides "assumes what is not true and infers what does not follow. His false assumption is that things are said to be in one way only, when they are said to be in many" (186a22-26). Aristotle surely does not think that Parmenides made this "assumption" in the sense that a geometer

proceeds from certain assumptions. As it is with lines 185a12-14 discussed earlier, it is a presupposition, not an assumption, which is in question. In the present passage, Aristotle repeats the point that things are said to be in many ways, invoking it yet again in his criticism of Parmenides. The passage which follows has vexed commentators, but is central to the argument against monism and must be given a close reading.

Parmenides' mistaken presupposition that things are said to be in one way only gets spelled out here as follows: "He must make it a premiss, then, not only that 'is' means only one thing, whatever is said to be, but that it means precisely what is, and precisely what is one" (186a32-34).* Aristotle is here claiming that Parmenides, who claims that what is is one, must mean not only that 'is' stands for one thing, but also that it stands for τὸ ὅπερ ὄν and τὸ ὅπερ ἕν.**

This is an important move on Aristotle's part, because it shows that he takes Parmenides to have thought that saying that something is, is not only to say that it exists but also to say what it is. On this view, τὸ ὄν is understood as a "secondary substance word," so to speak, and it therefore is entirely possible that, just as there can be more than one man, there can be more than one thing which is. So the force of saying that τὸ ὄν must not merely stand for one thing comes out if we see that for Aristotle a genus can be understood as one thing. If τὸ ὄν is said to stand for one thing in this sense, then it is

---

*Charlton translates τὸ ὅπερ ὄν and τὸ ὅπερ ἕν as "precisely what is" and "precisely what is one." I have something to say about this below.

**Cf. Met. IV, 1007a25; Posterior Analytics I, 22, 83a24-32.

open to a pluralist to point out that many things can have being in just the way that many living things can be animals. For a monist, τὸ ὄν must not stand for "what it would be for a thing to exist," since many things could then exist, but rather it must name the one thing which exists. The problem is rather like that one faced by theists who deny that 'God' is a proper name, yet claim that it is no mere contingency that there is one god.

An obvious anomaly here is Aristotle's failure to argue that being is not a genus, a point he maintains elsewhere and one which would certainly undermine any monist position which stands on the ground Parmenides has staked out. For if being is not a genus, if there is no class of things such as the class of things that are, then the present argument is otiose. I am for this reason inclined to agree with those who think that Aristotle is here attacking the monists on their territory; he grants to them their fundamental tenet only to show that even it leads to absurdity.

In addition to granting that being is a genus, Aristotle also grants to Parmenides the notion that what is other than being does not exist, and uses both of these ideas in his criticism of the Eleatics. For having said that being must not merely stand for one thing which is, but rather for to hoper hen and to hoper on, he goes on as follows:

> For that which supervenes is said of some underlying thing, so if 'is' supervenes, that on which it supervenes will not be, for it will be something different from that which is; and therefore will be something which is not. Precisely what is, then, will not be something which belongs to something else. It cannot be a particular sort of thing which is, unless 'is' means more than one thing, such that each is a sort of being, and it was laid down that 'is' means only one thing (186a34-186b4).

Charlton here translates τὸ ὅπερ ὄνand τὸ ὅπερ ἕνας "precisely what is" and "precisely what is one," but I shall leave them untranslated for the present. (Charlton's translation is by no means arbitrary. He says (p. 60): "Hoper ti in Aristotle normally means, I think (for a fair selection of examples, see Bonitz 533b39-534a23), 'precisely what is something' in the sense in which a certain bodily condition might be said to be precisely what is healthy"). Since they are clearly technical expressions, I hope that an analysis of the argument in which they occur will reveal their sense. The argument here is that being cannot, if it is a genus, be a genus in any category but substance. For if, by speaking of "the one being" or "the one thing which is," Parmenides takes being to be a predicate in a category other than substance, he is then committed, by virtue of the Categories doctrine, to holding that there is something to which being belongs, an underlying thing. But this underlying thing would be something other than being, if being belongs to it "not in virtue of itself" or kata symbebekos, and hence would be nothing: whatever is other than being is nothing (ex hypothesi).

So it would seem that Parmenides' being, if it cannot belong to something kata symbebekos, can only belong to something kath hauto. But since Aristotle uses "belongs to" just to mean "belongs to kata symbebekos," he says that "to hoper on . . . will not be something which belongs to something else."

What, then, is the force of saying that the Parmenidean to on must be to hoper on? From the argument just considered, it would seem to be that the Parmenidean being cannot be said of anything at all, where this is understood to mean that it cannot be said of

anything else. But can it be said of itself?* (Aristotle does argue that nothing else can be said of it: 186b4-13). When Parmenides says that being is and that being is one, is he saying something such that the saying of it both reveals what something is and that something is? Aristotle here gives only a short argument that it is impossible to speak in this way. (We considered this point in the fuller discussion of "Aristotle on saying something"). According to Aristotle, to say something is to combine things. So if there is only one thing, then nothing could be said. If Parmenides wants to say that being is, and "he must make it a premiss . . . not only that 'is' means only one thing, whatever is said to be, but that it means to hoper on," then there can be no difference between 'being' and 'is' in the claim that being is. Hence, to say "Being is" is merely to repeat oneself. Consider the account Aristotle gives of the invalidity of Parmenides' argument:

> . . . suppose we say that there are only pale things, and that 'pale' means only one thing . . . the being of pale will be different from that which has received it. By that I do not imply that anything can exist separately except the pale: it is not because they can exist separately, but because they differ in their being, that the pale and that to which it belongs are different. This, however, is something Parmenides did not get far enough to see (186a26-186a31).

What Parmenides did not get far enough to see is that if he wants to say that being is, there must be a difference between being and that which is said of it. And one need not be a Platonist, Aristotle is saying, in order for there to be a "difference in being" between that about which one is speaking and what one says about it. For "being is said

---

*Aristotle does not pursue this option.

atomism as an alternative to monism, in the context of the Physics it is better seen as just another garden path to be avoided.

At this stage in the Physics, Aristotle has accomplished two main tasks. On the one hand, he has clared away the major obstacle in the path toward his account of change. On the other, he has shown the usefulness of his own settled views in the course of doing the former. What he has left undone, however, is more important. Having disposed of Eleatic monism, he is not now faced with an obvious problem about change; it is no longer reasonable to say, "There seems to be change, but there cannot be any." And without the framework of monism to support it, the idea that something cannot come from nothing (nor from something) ought to fall by virtue of its own dead weight. For who can understand this idea? But Aristotle plunges on: "There are two main lines taken by the physicists," he says. Although Aristotle has committed philosophical patricide, the parent has other offspring, and what now develops is a kind of sibling rivalry for Aristotle's attention.

But his attention is still on father Parmenides. As F. Solmsen has noted,

> That the Parmenidean 'one' excludes genesis and vetoes 'not-being' becomes more acute when Aristotle moves on from the examination of Parmenides' doctrine to those of his successors. With some exaggeration Aristotle refers to the canon 'nothing can come to be out of not-being' as 'the common opinion of the physicists' and remarks that they turn-genesis either into qualitative change or into association and dissociation.*

---

*Friedrich Solmsen, Aristotle's System of the Physical World: A Comparison with His Predecessors (Ithaca, New York: Cornell University Press, 1960), p. 75.

The crux of this section is contained in the following remark about the physicists:

> . . . if everything which comes to be must do so either out of what is or what is not, then, if the latter is impossible (and about that there is unanimity among all who discuss nature), the former, they thought, must be true: everything comes to be out of things which already exist and are present, but cannot be perceived by us because they are extremely tiny. (187a33-187b1).

Aristotle's disagreement with this thesis does not prevent him from finding an important truth in his predecessors' claims:

> . . . all in some way agree that opposites are the principles. And that is plausible. For the principles must come neither from one another nor from anything else, and everything else must come from them. Primary opposites fulfill these conditions: because they are primary they do not come from anything else, and because they are opposite they do not come from one another. (188a25-31).

Unlike some of these earlier thinkers, however, Aristotle intends to give a reason for his belief that opposites are principles; the others acted "as though the truth were forcing them on."

It is important to note that Aristotle here accepts a view which, in one form or another, propelled his predecessors straight onto the horns of a dilemma: either they say that what is comes from what is not or they say that what is comes from what is. Since they all agree, in Aristotle's opinion, that the former is impossible, they are landed on the latter. But it is no less comfortable, apparently, to be impaled on one horn rather than another, because they cannot now account for the difference between genesis and alteration. Leaving aside those special problems that arise from doctrines of "mixing" and "separation," the belief in opposites gives rise to fundamental problems.

Cherniss thinks that Aristotle is anachronistic through and through in trying to find the seeds of his own full-blossomed theory in the Presocratics: "Genesis and alteration seemed to him obviously different processes; and, forgetting that the distinction was his own invention, he thought that it must have been clear in all its implications to the Presocratics also." But this is an unfair accusation: Aristotle typically describes his predecessor's views in such a way as to show just that they failed to draw the distinction in question. That "all of the physicists" subscribed to the doctrine of opposites is an exaggeration, if we understand by "opposites" what Aristotle elucidates in Physics I. This view is properly traced back to the Phaedo (70e ff. and 102b5 ff.) where, as Solmsen has shown,* Plato is responsible for the idea that "if an object is not properly defined by the enumeration of its parts, the association, i.e., the mechanical coming together, of its parts cannot be a satisfactory explanation of its genesis." Aristotle is well aware of the difficulties faced by him who adopts the view that opposites are principles; in particular, he is aware that (at least) some of the earlier thinkers adopted such a view because of Parmenides' arguments against "not being." As well, he saw that in so doing they were opting for a version of the thesis that "what is comes from what is."

Aristotle's task, then, is to defend the doctrine of opposites against the charge that it makes genesis impossible, for the Presocratic opposites were invoked at the expense of genesis. And while he may take his lead from Plato, he still has to plot an uncharted

---

*Solmsen, p. 62.

course. For, as Solmsen notes, "If it is true that Plato restores the concept of genesis which the later Presocratics had shunned like something unclean, it is also true that he attaches it in particular to those first and basic physical realities which the Presocratics had, in his opinion, taken for granted yet used to account for the origin of all the other entities in the physical realm."* In short, Aristotle must show how the genesis of substances is possible when the elements are opposites.

The way out of this difficulty is to "posit some additional nature to underlie the opposites." (189a28). Doing so will enable him to say that "what is comes from what is not," and, hence, allow him to escape having to agree with the Presocratics that "what is comes from what is." But before we examine the route Aristotle is about to take, it will be useful to review the ground already covered. Some important stones have been left unturned.

Aristotle has not yet criticized the claim that "what is cannot come from what is not, nor from what is," even though its presence is everywhere felt in Physics I. Rather, he has tried to absorb whatever truth there is in it by osmosis from those ideas he takes over from the Presocratics. But their ideas are clearly reactionary and still firmly in the grip of father Parmenides. They claim that what is comes from what is and so, at best, cannot explain how what is came to be in the first place. Plato, in his arguments for the existence of the soul, takes it for granted that there is genesis, and gives an independent account of the genesis of the cosmos. As a physicist, Aristotle

---

*Solmsen, p. 48.

thinks he, too, can assume that there is change, but will reject any explanation whose light evaporates the distinction between genesis and qualitative change.

If it is the triad of two opposites and an underlying thing to which Aristotle turns in order to preserve this difference, then his belief in the teleology of nature would seem to be the hingepin of his theory:

> Our first point must be that nothing whatever is by nature such as to do or undergo any chance thing through the agency of any chance thing, nor does anything come to be out of just anything, unless you take a case of concurrence. (188a32-35).

The examples he considers in this passage are not, however, the stuff out of which a teleological cosmos is constructed; they are "logical." But here, as is typical, he considers cases of change in the category of quality, not substance. It is when he considers substantial change that his notion of final cause is crucial, and especially in the case of the change of one living thing into something else. Indeed, though he seems not to notice it here, he later reminds himself that substances do not have opposites, and then the similarity between "being pale" and "being a man" undergoes a certain strain. But he is like an engineer faced with the task of building an engine out of the remains of someone else's failed effort: the devices he has to work with are already a bit shopworn and he hasn't got the right ones anyway. There is always the danger that his product will have the look of Rube Goldberg's hands on it.

The "logical consideration" is this: something which comes to have a certain quality will come to have it only if it did not have it already. This much Aristotle owes to Parmenides: What is

cannot come from what is. So if a thing comes to be dark, it must have been not dark, or pale (in the felicitous case, each opposite has a name). The aim here is, in part, to show what is wrong with saying that, e.g., the pale comes to be out of something else or something other. Being musical would count as something other than being pale, but something can be musical and still be pale, so there is not the proper sort of difference between being pale and being musical: they are not contraries. So just as I can be said to have gotten a suntan only if I did not have one, something can be said to have become pale only if it was not pale.

But there are difficulties here which take us beyond the scope of a resume. For the moment I will simply mention them, giving them a fuller treatment later on in the chapter on universals.

The first and most obvious problem concerns the contention that substances do not have contraries. If everything comes out of its contrary, and substances do not have contraries (Categories 5, 3b24), then, it would seem, substances do not come to be. Yet it is substance alone which, in the Physics, Aristotle claims can properly be said to come to be (190a33). Less obvious, but equally important, is a methodological defect which afflicts Aristotle's thinking here: he oversimplifies. There is some irony in this because, as G. E. L. Owen has noted, Aristotle's criticism of Plato showed that he shared with J. L. Austin the conviction that "it is an occupational disease of philosophers to over simplify--if it is indeed not their occupation." Aristotle himself makes out a plausible case for saying that some changes involve contraries, e.g., the change from a thing's being dark to its being light. But then he goes on to say that all change involves contraries,

if only in the sense that all change involves the presence and absence of a form. This view reveals Aristotle's "Platonism" both in method and content; as will be shown, Aristotle is hamstrung not only by his concessions to Parmenides, but by his Platonism as well.

Aristotle's Account of Change

There are many texts to which one can turn in order to see Aristotle at work on the problem he inherited from Parmenides; it was a time-honored issue even in his day. As G. E. R. Lloyd has noted, "The beginnings of an awareness of the problem of change can be traced back to Milesian speculation about the primary substance . . . . In the early fifth century this became the chief problem in the inquiry concerning nature."* It is Parmenides, though, who was responsible for the philosophical problem, and Aristotle who attacked it as such. The others were cosmologists, looking for "scientific" solutions to a non-scientific problem. Even for Aristotle, the problem called for an examination of "principles, causes, or elements,"** but this does not mean that Aristotle was pursuing questions of a scientific or cosmological nature. His inquiry is philosophical, and (especially in the case of Books I and II) has little to do with cosmology or what is now called physics. In this way, his reaction to Parmenides

---

*G. E. R. Lloyd, Early Greek Science (New York: W. W. Norton and Co., 1970), p. 36.

**Elders (Aristotle's Theory of the One, p. 16) says that "elements and principles" is an expression mainly used when describing adversaries views. See, e.g. Physics I, 5, 188b28. But this is not always so; see Met. VII, 10, 1035a30-b1.

is unique. And as Owen has pointed out,* Aristotle's appeal to what the Oxford translators render "observed facts," "data," or "phenomena" is often an appeal to the accepted views on a subject, or what is generally said about something. Finally, there is the doctrine often mis-labelled "Aristotle's Four Causes." None of these four kinds of explanation which Aristotle marks out concerns the Humean notion of causation; the apparent parallel with modern science is bogus here as well.** It should come as no surprise, then, to find that much of what Aristotle has to say about change occurs in the Metaphysics as well as in the Physics.

In the Physics, Aristotle, having dispensed with Eleatic monism, says that

> if there are causes and principles of things which are due to nature, out of which they primarily are and have come to be not by virtue of concurrence, but each as we say when we give its reality, everything comes to be out of the underlying thing and the form.***

This is a very general claim, meant to cover both substantial change (190b1-3) and alteration (190b20-21); while it may be so general as to threaten the distinction between substantial change and alteration, this is plainly not Aristotle's intention.

In the earlier chapters of Physics I Aristotle was at

---

*G. E. L. Owen, "Tithenai ta Phainomena," Aristotle: A Collection of Critical Essays, ed. J. M. E. Moravcsik (Garden City, New York: Anchor Books, 1967), pp. 167-190.

**See R. K. Sprague, "The Four Causes: Aristotle's Exposition and Ours," The Monist, 52, No. 2 (1968), pp. 298-300.

***Physics I, 7, 190b16-21. See Charlton's "Notes" (Aristotle's Physics) for his comments on 11 18-19.

work on the question of how many elements or principles are involved in change. He argues that there are at most three, but wavers on the question whether they are two or three in number (189b28-30). Since "the single one is enough for being acted upon" (189b18-20), the question remains how many act on it; and here is the reduction of opposites discussed above:

> Moreover, it is impossible that there should be more than one primary contrariety. For substance is a single genus of being, so that the principles can differ only as prior and posterior, not in genus; in a single genus there is always a single contrariety, all the other contrarieties in it being held to be reducible to one (189b23-27).

Charlton thinks that the issue, whether the principles are two or three, concerns the question whether there is an underlying thing or not. Aristotle says, as Charlton notes, that "there is an argument for positing an underlying thing, 189a21-3, b17-18; people might feel difficulties otherwise, a22, 28; if anyone accepts certain arguments, he must say so and so, a35-b1 . . . ."* Aristotle's language is guarded here, but not so, as Charlton claims, only with respect to whether or not there is an underlying thing. For at 189a33 Aristotle reminds us that we do not say that one substance is the contrary of another, and then immediately asks, "How, then, can a reality [ousia] be constituted by things which are not realities?" The shadow of doubt is cast upon the contraries as well as upon the underlying thing. In fact, since Aristotle goes on in the next chapter to say that everything comes to be out

---

*Charlton, "Notes," p. 67. Ross is less certain on this, but thinks that 189b28-29 is "a reference to the tentative arguments . . . in a21-b6 in favor of a third principle." W. D. Ross, Aristotle's Physics: A Revised Text with Introduction and Commentary (Oxford: The Clarendon Press, 1936), p. 491.

of the underlying thing and the form, it is the contraries whose status as explanatory factors is in jeopardy, not that of the underlying thing. And so his summary (191a15 ff.) can be read.

The reduction of opposites in this chapter results in a primary opposition (189b24). "Primary," presumably, because the category of substance is ontologically primary, and because within it, there is one opposition from which any others can be derived (or, in terms of which, explained). This repeats a point made at the opening of the chapter where Aristotle argues that the principles cannot be unlimited. It isn't necessary that they be unlimited ("Empedocles claims to do everything Anaxagoras can do with his unlimited plurality") and some principles "arise from others, whereas principles ought to be constant" (189a15-20). The reference to the Presocratics may explain the language here, making it appear as if Aristotle wonders what the universe is made of, or what really constitutes it. He is working to keep his predecessors on his side, though they would doubtless be unsatisfied with the "principles" Aristotle finally settles upon. Empedocles and Anaxagoras were, to use some of Aristotle's language, concerned to know which natural substances were elemental,* though Aristotle may be guilty of exaggerating their interest in "matter."** In any case, he pictures the Presocratics here as trying to find out which principles constitute the nature of things (189a27), yet his own principles are not, strictly speaking, constitutive of anything in this

---

*See Lloyd, Early Greek Science, pp. 44-45.

**H. Cherniss, Aristotle's Criticism of Presocratic Philosophy (Baltimore: Johns Hopkins Press, 1935), p. 360.

sense.* And as Solmsen has argued, while Plato uses the notion of "mixing" in his account of cosmology and his account of genesis,

> For Aristotle, on the other hand, the cosmological theory of the elements and the study of their behavior in genesis and mixture are two entirely distinct subjects, which find their treatment in different works, offering scanty evidence of mutual acquaintance and making little effort at utilizing each others results.**

Even in his remarks about the simple bodies (earth, air, fire, and water), Aristotle says they are thought to be substances, not "because they have a certain physical composition which renders them elementary, but because they can occur solely as the subjects of propositions and never as predicates."*** It is a point of logic, not of physics, which leads him to call the simple bodies "substances": "All these are called substance because they are not said of a subject but the rest are said of them."****

It is ironic, in light of all of this, that Aristotle should imply that it is his discussion of the Eleatic monists which offers scope for philosophy, as if the bulk of his remarks were not philosophical at all. In fact, it would be easy to fill a large book just by recording all of his philosophical remarks about coming to be. I shall here be concerned with relatively few of them, most of which will come from

---

*It is only matter which constitutes something, not the form, and even with respect to the matter we cannot say, e.g. "This is wood," but only "This is wooden." See Met. VII, 10.

**Solmsen, Aristotle's System of the Physical World, p. 12.

***M. Durrant, Theology and Intelligibility, p. 47.

****Met. V, 5, 1017b10-13.

chapter seven of the first book of his Physics.*

"Physics," in Aristotle's sense, is a theoretical science, i.e. one which aims at knowledge for its own sake, that is concerned with things having a separate existence and having within them a source of movement and rest. The opening of his Meteorologica summarizes what he has considered and what he proposes to consider. As Ross has noted,** the movement is from general to particular, beginning with "the first causes of nature (i.e. the constituent elements involved in all change) . . . ." But "constituent element" is here ambiguous between what we might call "physically constituent" and "logically constituent," the former, roughly speaking, being the concern of Aristotle's predecessors and the latter his own. I have already noted some aspects of this difference*** and will now turn to Aristotle's own account with a view to showing why it should be distinguished from the sort of account that was his philosophical inheritance.

In Physics I, 5, Aristotle remarks that it is plausible that the principles are opposites because

> the principles must come neither from one another nor from anything else, and everything else must

---

*While this may seem arbitrary, I hope that it will become clear why I have chosen to discuss certain texts rather than others. I will not be concerned with his definition of motion, for example, in Book III of the Physics, because I think its analysis must wait upon a discussion of the more basic issues considered in Books I and II.

**W. D. Ross, Aristotle, 5th ed. (London: Methuen and Co. Ltd., 1923; rev., 1949), p. 63.

***One good example of the difference at issue is that between Aristotle and Empedocles on the so-called "simple bodies." See above p. . See also De Generatione et Corruptione I, 316a10 ff.

> come from them. Primary opposites fulfil these conditions: because they are primary they do not come from anything else, and because they are opposite they do not come from one another.*

This remark can be understood in two ways. On the one hand, it might mean that no physical element has anything physically simpler as a constituent, and is not produced by anything. On the other hand, it might mean that the existence of everything else is explained in terms of certain principles, which themselves cannot be explained by anything else and which are not derivable from any others. The former interpretation fits the sort of account Aristotle tells us his predecessors gave. But, for his own part, he needs to take into hand certain "logical considerations." He then goes on to develop some points made in the Phaedo about opposites (70C-72D), and the "logical considerations" can be understood to concern, initially, at least, what we do and don't say. Aristotle claims that

> nothing whatever is by nature such as to do or undergo any chance thing through the agency of any chance thing, nor does anything come to be out of just anything, unless you take a case of concurrence (188a32-35).

We do not say, for example, that John was pale but now is cultured; there is "no connection," as we say, between being pale and being cultured. It may be true that John was pale and is now cultured, but what would be the point of saying so? Aristotle suggests that the implication of saying that a was X and is now Y is that Y came out of X. But not just anything can come from something; a thing always comes from its opposite, or from something in between. So if Y is not the opposite of X, or something between X and its opposite, then it is just incidental

---

*Physics I, 5, 188a27-31.

and not remarkable that a was X before it was Y. Charlton says that Aristotle is not putting forth here

> an empirical doctrine to the effect that the universe is regular; it is the purely logical doctrine that change is within certain ranges . . . . This seems to be a sound point, and one way of understanding an Aristotelian 'kind of thing' or category (189a14, b24-6) is as a range within which things may change.*

It is not odd to say, for example, that the water in a lake changed from cold to warm. One might make such a remark in the course of telling someone how the water is. But one could say that the water changed from cold to shallow, saying "The water was cold but is now shallow." There is a connection between how the water in a lake feels, say, and its depth. One who understood this would then draw the inference that the lake was cold and deep, but is now shallow and warm. Aristotle holds that the lake's having been deep was not incidental to its becoming shallow, but that its having been cold is merely coincidence. It came to be deep "out of" or "from" being shallow.

Construing Aristotelian categories as "ranges within which things change" will not explain Aristotle's point here. For within a category, say the category of quality, there are as many "ranges" as there are pairs of o-expressions. The central point is not that things change in one category or another, but that, within a given category, there are a number of ranges within which things change. For example, consider the range corresponding to the o-expressions "hot"/"cold." A thing can change from being hot to being cold, and in between. But it cannot change from being hot to being pale; being pale

---

*Charlton, "Notes," p. 66.

is in the range "pale/dark." Of course, something can be both hot and pale, but this is incidental to its becoming cold, because it can become hot only if it is cold or lukewarm.

It was tempting to say just now, "if it is cold or of some temperature or other." That would be like saying, "It can become dark if it is pale or some pale color." But the temperatures and the colors are not, so to speak, in the ranges hot/cold and pale/dark. This was the point of distinguishing "o-expressions" from such expressions as "red" and "sixty degrees Celsius." I do not disclose what anything is in the uttering of an o-expression.*

If we say that red (or redness) is a quality, then it is different from, e.g. pale (or pallor). When I say that something is red, I tell you what its color is. So within, say, the category of quality, there are ranges of opposition within which changes may occur, but there are also ranges within which change may occur that are not ranges of opposition, e.g. the range of temperatures Celsius. Let me develop this point a bit before going on (it will be considered in more detail in the last section).

Let us call expressions uttered in answering a "What is it?" question, "a-expressions." They will contrast with o-expressions. Aristotle himself makes a distinction something like this in the Categories, where he says (3b24) that there is nothing contrary to substances: "For example, there is nothing contrary to an individual man, nor yet is there anything contrary to man or animal." It is not only substances, however, which have no contraries, but other things also,

---

*Except, perhaps, what the word is which I have uttered.

e.g. quantities. He then goes on to say,

> For there is nothing contrary to four foot or to ten or to anything of this kind--unless someone were to say that many is contrary to few or large to small; but still there is nothing contrary to any definite quantity. (3b27-33).

This is reminiscent of the Philebus passage where Plato distinguishes, to put it in my terminology, things whose names are o-expressions and things whose names are a-expressions. He calls the former "unlimited" (ἄπειρον) and the latter "limited"; the one group is "indefinite," we might say, or "without definition." The other is definite, as in the case of a definite quantity, to use Aristotle's own example. This fits neatly with the claim that a-expressions are uttered in saying what something is, and that o-expressions never are. To say what something is is to say something definite, even sometimes to give a definition. O-expressions have to do with what is said to be more or less such-and-such, unlike a-expressions:

> . . . if this substance is a man, it will not be more a man or less a man either than itself or than another man. For one man is not more a man than another, as one pale thing is more pale than another and one beautiful thing more beautiful than another . . . the body that is pale is called more pale now than before, and the one that is hot is called more, or less, hot. Substance, however, is not spoken of thus. For a man is not called more a man now than before, nor is anything else that is a substance. Thus substance does not admit of a more and a less (3b37-4a9).

A-expressions, then, are either names of substances or names of definite quantities and qualities, etc. They tell us what something is; they do not go together with "more" or "less," as o-expressions do. Apart from the nomenclature, this is an Aristotelian distinction, one that he develops in the Categories and elsewhere, and one that fits well with the M-thesis distinction between saying what something is and

the other kinds of remark one can make about something. But there is almost irony here, for Aristotle, in our Physics texts, does nearly everything in his power to destroy this distinction. He wants all coming-to-be accounted for in terms of opposites, as if it made no difference whether the range in which a change takes place is marked by o-expressions or by a-expressions. We do speak of something's becoming hotter, but not of something's becoming 100 degrees Celsius. A thing is either 100 degrees Celsius, or it isn't. As Aristotle himself would say, it is a definite quantity.* So in conflating o-expression ranges and a-expression ranges Aristotle violates a distinction he himself has made. The distinction preserved may have ruined the simplicity of his account of coming-to-be; but far worse is the consequence of its ruin: our talk about change will fall prey to sophistical objections and will, in the end, lead us into nonsense.

Some of the difficulty comes to light when, in the Physics, he comes to consider the category of substance, for no substance has an opposite. He says that in the case of things which are composite, i.e. composed of matter and form, "the opposed dispositions have no name."** This is a very significant comment, and for two reasons. First there is the contrast between things which are simple and the things which are composite (188b9-11). Having just discussed the pale and the dark, the musical and the non-musical, Aristotle goes on to consider a house and a statue. This helps to settle the question

---

*There are some examples which run counter to this point, e.g. in the case of colors, but I will consider them later on.

**Physics I, 5, 188b9-11.

(Charlton, p. 67) whether the opposites are entities the correct expression for which would be abstract ("pallor") or concrete ("pale thing"). A pale thing is a composite thing, e.g., a pale man. Pallor, on the other hand, is not a composite of form and matter in the way that Aristotle's favorite examples (house, statue) are. Secondly, since the opposed dispositions or conditions he goes on to discuss are without names, his thesis about them is much less clearly dialectical.* Since the names of substances tell us what things are, no names of substances are o-expressions. Hence, there are no "ranges of opposition" within the category of substance, and Aristotle cannot appeal to our intuitions about the uses of o-expressions to make the point that change in the category of substance involves opposites.

Before criticizing Aristotle's account in any more detail, however, I would first like to spell out what he takes to be the "resolution of the difficulties felt by other thinkers," i.e. his own statement of what there must be in order for there to be change. I will turn, then, to Physics I, 7, for the exegesis. Later, in my criticism of Aristotle's position, I will take into account other texts, and then go on to develop these and other critical comments.

Physics I, 7, opens with a distinction between simple and compound coming-to-be things.** He is attempting to make the point that change is from or out of something which can be thought of in two ways, viz. as a privation or as a subject which changes. He

---

*See De Anima II, 7, 418a26 for a parallel.

**I shall use the phrase "coming-to-be-things" to mean both the terminus a quo and the terminus ad quem of change.

then claims that, given this distinction, "there must always be something underlying which is the coming-to-be thing, and this, even if it is one in number, is not one in form" (190a13-16). We can say either that a man becomes musical or that the not knowing music comes to be musical (or "knowing music"). In either case, something simple has been said to have changed; this is not so when we say that a not knowing music man comes to be a man knowing music. Both that from which and that to which the change took place are compound. He then says that

> in some of these cases we say, not just that this comes to be, but that this comes to be out of this--for instance, knowing music comes to be out of not knowing music. But not in all: knowing music does not come to be out of man, but the man comes to be knowing music.*

Something comes to be from or out of its privation, not from what underlies. Kosman makes an interesting observation about this distinction, claiming that it is "clearly related to that between form and matter."** I take it he means that the privation is the absence of a certain form, e.g. the lack of the form, musical, and that the man is the matter in the sense that it underlies the change, i.e. persists through the change (190a9) and is able to receive the contraries. (Categories 4a10 shows that an individual man is able to receive contraries; it is "most distinctive of substance that what is numerically one and the same is able to receive contraries"). Further, "numerically one" often just means "materially one" (e.g. 190a15). Kosman goes on to

---

*Physics I, 7, 190a5-8. Cf. De Generatione et Corruptione I, 4, 319b3 ff. and Met. VII, 7, 1033a5 ff.

**L. Aryeh Kosman, "Aristotle's Definition of Motion," Phronesis XIV, no. 1 (1969), pp. 40-62.

say that

> . . . the different senses of "of" in "the perfection or development of X" when X is the subject of that development and when X is the privation from which the development proceeds, parallels what we might call the formal and material "of" as in "a statue of Pericles" and "a statue of bronze." Imagine a piece of wood, sculpted to have molten flow, perhaps painted a bronze color, entitled Alloy of Copper and Tin, and exhibited; that would be a statue of bronze in a formal sense. A statue of Pericles in the material sense is imaginable, but too macabre to describe.*

Part of what is at stake here is the Parmenidean point that something cannot come from nothing, as Aristotle notes at Metaphysics VII, 7, 1032b30. This means that "some part of the process [of change] will pre-exist of necessity; for the matter is a part." Aristotle then says that "this is present in the process and it is this that becomes something." The man, then, is the matter when a man becomes musical; the musical does not come out of the man, but out of the non-musical, its privation. The privation does not endure; it is no longer true that the man is unmusical. In the Metaphysics, Aristotle follows this point with a warning: just because in some cases where the matter endures it is right to say that what has come to be is what endured, this is not always so.

> . . . as for the things whose privation is obscure and nameless, e.g. in brass the privation of a particular shape or in bricks and timber the privation of arrangement as a house, the thing is thought to be produced from these materials, as in the former case the healthy man is produced from an invalid. And so, as there also a thing is not said to be that from which it comes, here the statue is not said to be wood but is said by a verbal change to be wooden, not brass but brazen, not gold but golden, and the house is said to be not bricks

---

*Kosman, ibid., p. 48.

but bricken . . . .*

In such case, i.e. where the privation is unclear and nameless, we say that what came to be came to be from the materials. But we do not say that it is that material, e.g. bronze, but rather that it is made of that material, e.g. it is brazen. This difference can be accounted for in terms of the distinction between o-expressions and a-expressions. Since the latter do not form a subset of the former, the privation of something named by an a-expression will always be "unclear and unnamed." Since something named by an o-expression will have an opposite, there will always be something in such a case the expression for which is an o-expression. In short, the privation of something the proper expression for which is an a-expression will not be something the proper expression for which is an o-expression.

"Privation" is given a broad meaning in Aristotle's philosophical lexicon: privations are said to be "so called in the same number of ways as denials containing 'un-' and the like" and "again, from not possessing at all . . ." (Met. V, 22). At Categories 10, 12b26, he says that cases of privation and possession are not opposed as contraries. But in Metaphysics IX, 1, 1045a32-36, he says that "privation is applied to anything which does not possess a certain attribute," and it must be this general sense which is found in the Physics, since none of the other senses square with the examples he gives there. The absence of a certain shape in the bronze, then, will count as a privation. Since they are often unnamed, we will speak of them generally as cases of "something's not being Ø," where "Ø" does duty for

---

*Met. VII, 7, 1033a13-20.

some a-expression. This, of course, will give us expressions for items in any category: "'What a thing is' in one sense means substance and the 'this,' in another one or other of the predicates, quantity, quality, and the like."*

To review, then, Aristotle is claiming that whenever something comes to be something, there is always something underlying. In some cases, the underlying thing persists through the change; in other cases, it does not. Aristotle next distinguishes between those cases in which we do, and those in which we do not, say that something comes to be out of or from something: x is said to be out of y "chiefly in connection with that which does not remain." We do not say that the unmusical comes out of man.

The point of these remarks about what is and is not said is anti-Parmenidean: there always is something out of which a thing comes to be. In the obvious case it is the compound thing, the unmusical man. In the most tendentious case, it is a privation, something unclear and unnamed.** The move here is like the parry to the objection in the Sophist that, if there is falsehood, non-being will be said to exist: some say, Aristotle remarks, "that that which is not is --not is simply, but is non-existent."***

So far Aristotle has considered cases in which something

---

*Met. Vii, 4, 1030a18-22.

**See Anscombe, Three Philosophers, p. 23: "Terms expressing privation . . . stand for things that exist . . . (but not) for what Aristotle calls 'a being'."

***Met. VII, 4, 1030a25-27.

comes to be, not simply, but comes to be something.* In these cases something changes in a certain respect, viz. in "quantity, quality, relation, time, or place" (190a33-35). Quantities, qualities, etc. are quantities, qualities, etc. of substance. This is the familiar Categories doctrine. But substances, too, Aristotle here goes on to say

> and whatever things simply are, come to be out of something underlying . . . . There is always something which underlies, out of which the thing comes to be, as plants and animals come to be out of seed.**

The sense in which substance is said to underlie alteration is familiar: substance is not said of anything else, but all other things are said of it. "Underlies" in this use has reference to what Geach would call a logical point: if all and only substances are (at least, in principle) the bearers of proper names, then the point is that "a proper name is never used predicatively--unless it ceases to be a proper name . . . ."*** Aristotle's point is by no means straightforwardly "logical" or "grammatical" in this sense, but I think it is not unfair to say that there is a connection between being a primary substance and being a primary subject. But where the underlying thing is a seed, say, there is not even a hint of the notion, "underlying as a subject." Even if Geach's "being predicated" is not Aristotle's "being said of," seeds are in no sense primary subjects of discourse in the way that first substances are. So "underlying thing" has, if not two

---

*Following the traditional practice, I shall call these cases of "alteration," the others "genesis."

**Physics I, 190b1-5.

***Geach, Reference and Generality, p. 42.

entirely distinct senses, at least not the very same sense.*

Aristotle suggests that something which simply comes to be always does so by something: "some of them by change of shape, like a statue, some by addition, like things which grow, some by subtraction, as a Hermes comes to be out of the stone, some by composition, like a house, some by alteration, like things which change in respect of their matter." Things which are altered are not said to be altered by something, in this sense. Alteration just is change in some respect. Genesis seems rather to be the upshot of something's (some non-substance's) changing in some respect. This "something" is the underlying thing.** So in all cases in which something comes to be, there is something from which it comes. The props are removed from under one side of the Parmenidean dilemma.

The other side is meant to cave in because (a) in the case of alteration there is always some privation from which the change proceeds; and (b) in the case of genesis, there is the underlying thing, which Aristotle speaks of generally as "matter" (190b24). This is something which is not, in the sense that it is not a "this."*** The Eleatic edifice thus tumbles from the corrosive effects of things which in some sense are and in some sense are not; as in many cases of decay, such forces are unclear and unnamed.

As Anscombe says, "matter never exists except in one form or another" (Three Philosophers, p. 47), and sometimes the

---

*Cf. Met. VIII, 4, 1044a32-b2; Met. V, 8, 1017b10-14.

**Only those things composed of matter and form admit of gen. et corr. (Met. VIII, 1, 1042a29-31).

***De An II, 1, 412a7-8; Met. VIII, 1, 1042a27-29.

underlying thing is a substance, sometimes not. If Socrates grows taller, then the underlying thing is the man, Socrates. This explains why Aristotle says that "clearly matter is also substance; for in all opposite changes that occur there is something which underlies the changes, e.g. in respect of place that which is now here and again elsewhere . . . ." (Met. VIII, 1, 1042a33-35). In the case of substantial change or generation, it would appear that there is a difference. Since the change is substantial, what underlies it cannot be a substance, else it would not be a change of substance at all, but rather a change in another category. This sort of reasoning has led some interpreters to speak of ultimate or primary matter, and to say that in generation and destruction form is predicated of prime matter.* Joseph Owens, for example, points to Metaphysics VII, 3, 1029a23-24, where Aristotle says, ". . . for the predicates other than substance are predicated of substance, while substance is predicated of matter."** He then says (p. 85) that

> the doctrine clearly enough is that form in the category of substance may be predicated of its matter as of a subject. You may accordingly apply the form of man to matter, the form of iron to matter, and so on, and call it predication. But how can you express this in ordinary language? It can hardly be done. Ordinary language has not been developed to meet this contingency. The best you can do, perhaps, is to say that matter is humanized, equinized, lapidified, and so on, as it takes on forms like those of a man, horse, and stone.

The linguistic difficulty, however, is mild by comparison to another

---

*I do not discuss Charlton's argument that Aristotle did not believe in prime matter because I have an independent argument to put forth, and a discussion of his would be mere polemics.

**"Matter and Predication in Aristotle," The Concept of Matter in Greek and Medieval Philosophy, ed. Ernan McMullin (Notre Dame: University of Notre Dame Press, 1963), p. 82.

which Owens' interpretation involves: ". . . with change in the category of substance you cannot observe the subject that changes, even in principle. This means that you cannot observe the subject changing. Change in the category of substance is accordingly not observable, even in principle" (p. 89). Nevertheless, Owens thinks that Aristotle held this view and that the crux of the matter, so to speak, emerges in the Physics where Aristotle had established that there is "in sensible things a subject still more fundamental than the concrete individual. A visible, tangible, or mobile thing . . . was necessarily composite. It was literally a con-cretum. It was composed of more fundamental elements. These ultimate constitutents of sensible things, according to the Aristotelian reasoning, were form and matter. Matter played the role of ultimate subject, and a form was its primary characteristic" (p. 82).

Ross, however, cites Metaphysics IX, 7, 1049a24-27 as the "nearest approach in Aristotle to the use of πρώτη ὕλη in the sense of entirely formless matter."* "But," he goes on to say, "even here it does not mean that, but matter with the minimum of form. If there is no material, x, out of which fire is made, so that it can be called x-en, then fire is first matter, but it will still have the definite character of fire. Cf. Δ . 1015a8n." This view jibes with the contention which forms the backbone of the M-thesis: to be is to be something or other. Owens, of course, does not subscribe to this view, claiming that prime matter "has nothing to distinguish it as found in one thing from itself as found in another" ("Matter and Predication,"

---

*Ross, Aristotle's Metaphysics, p. 256.

p. 84, n. 6). The passage Ross cites follows upon the point that if something is made of x, then it is called, not "x," but "x-en":

> And if there is a first thing, which is no longer, in reference to something else, called 'that en,' this is prime matter (1049a25-26).

It is called "matter" because it is a constituent of something else, and "prime" because nothing, in this sense, constitutes it. He then goes on:

> e.g. if earth is 'airy' and air is not fire but 'fiery,' fire is prime matter, which is not a 'this.'

Aristotle is claiming that fire is not an individual thing, i.e., as Socrates is an individual man. This, however, is not enough to show that prime matter is formless, for it is still said to be fire. The sense in which it is not an individual or a "this" comes out by reflecting on the difference between "mass" and "count" nouns.* If "fire" is understood as a count noun (think of "camp fire"), then I can say, "Here is one fire and there is another"). But taken as a mass term, "fire" does not provide criteria for counting; it is rather a kind of stuff. In this sense, fire is matter because it is that same stuff, as Anscombe says, which persists through change (Three Philosophers, pp. 51-52). Aristotle goes on in our text to draw a distinction:

> For the subject or substratum is differentiated by being a 'this' or not being one; i.e. the substratum of modifications is, e.g., a man, i.e. a body and a soul, while the modification is 'musical' or 'pale.' (The subject is called, when music comes to be present in it, not 'music' but 'musical,' and the man is not 'paleness' but 'pale,' and not 'ambulation' or 'movement' but 'walking' or 'moving'--which is akin to the 'that en.') Wherever this is so, then, the ultimate subject is a substance; but when this is not so but the predicate is a form and a 'this,' the

---

*See, for example, Geach, Reference and Generality, pp. 38-40.

> ultimate subject is matter and material substance. (1049a28-1049b2).

Ross takes the same view as Owens of lines 28-35 here, saying that the "substratum is bare unqualified matter" when the predicate is a form and a "this" (Ross, p. 257). But another interpretation is possible. To begin with, notice that, in the controversial sort of case, the predicate is said to be a form and a "this." Aristotle makes the same point at the conclusion of his remarks on the various senses of "substance" in his lexicon:

> It follows, then, that 'substance' has two senses, (A) the ultimate substratum, which is no longer predicated of anything else, and (B) that which, being a "this," is also separable--and of this nature is the shape or form of each thing (Met. V, 8, 1017b23-25).

Durrant has written about this, crediting me for part of the argument,* as follows:

> Aristotle says that the μορφή and εἶδος of each particular sort of thing comes under this category. For these purposes Aristotle seems to be equating μορφή and εἶδος (form), which is unfortunate for there is a distinction to be drawn. At Metaphysics, 1029a3-8, Aristotle says that the μορφή of the statue is τὸ σχῆμα τῆς ἰδέας: the 'arrangement' of what is signified by, to invoke a contemporary term, 'characterizing universals'** in their use as predicates of a statue. (That ἰδέα covers 'characterizing universal,' cf. Physics, 193b36; Metaphysics, 1036b13; 1073a19.) Here, I take it, the arrangement of the properties signified by such characterizing universals would be for example 'manly shape.' But not every εἶδος term has reference to what is signified by characterizing universals in their use as predicates, nor is every such term of the form '____ shape' writable in such a form. Indeed at Metaphysics, 1029a31 Aristotle dismisses an account of substance in terms

---

*Theology and Intelligibility, p. 63.

**See Strawson, Individuals, p. 168.

> of a combination of 'matter' and μορφή, but this is not to reject an account of substance in terms of matter plus εἶδος. An account of substance in terms of 'matter' and μορφή is rejected, I take it, since an account in terms of its matter plus the properties signified by the characterizing universals which hold true of it is unsatisfactory in that such an account cannot tell you what something is. Indeed you have to know the answer to this question in order to identify the particular parcel of matter and the particular properties signified by the characterizing universals as the matter it is and the properties they are. This is why Aristotle says that an account of substance in terms of a combination of matter and μορφή is to be dismissed since it is 'posterior.'*

As regards the mention of form in Metaphysics VIII, Durrant quotes Anscombe's remark that "the form, then, is what makes what a thing is made of into that thing. It may be literally a shape . . . ." (Three Philosophers, p. 49). Durrant replies that she does not distinguish μορφή and εἶδος, and contends, on the basis of his argument quoted above, that it cannot literally be μορφή which makes, e.g., bronze into a statue. He adds that since the position of a beam is what makes it a lintel, and time what makes food breakfast, "it becomes clear from 1043a6 ff. that, whilst 'being in a certain position' or 'eaten at a certain time' might be forms in that they signify the actuality (ἐνέργεια) of something or other, in that they do not signify the actuality of substances, they do not signify actuality per se (αὐτὴ ἡ ἐνέργεια), namely such forms are deficient (p. 64). These, therefore, are deficient "forms" and it is "only in the case of 'substantial' definitions that we get a reference to a non-deficient central case of a form" (p. 64).

These distinctions having been made, Durrant then goes on to discuss the sense in which a substantial form may have individual

---

*Theology and Intelligibility, p. 63.

and separate existence. (Owens, by the way, does not; it is easy to think, therefore, that for him a form is a Platonic entity, or like a cookie cutter in use on a sheet of dough. See the mention of form being predicated of matter in this Platonic context: Met. IV, 3, 999a32-999b1). Durrant notes that at Metaphysics 1035a1 ff., Aristotle allows that the form and the thing of which it is the form have individual existence. The matter, by contrast, never does. Durrant remarks that "an εἶδος has individual existence in that any term falling under this category can be sensibly preceded by 'one' and can be sensibly combined with a demonstrative to make an identifying reference to some individual" (pp. 64-65). This is the M-thesis view that was spelled out in some detail in the first chapter of this essay. Where Aristotle is not struggling with the Parmenidean objection to the claim that things come to be, his worked-out thought is that forms make primary substances the things they are, and makes each of them something which is one.* The forms make things what they are and account for their unity because

> each is by its very nature essentially a kind of unity, as it is essentially a kind of being--individual substance, quality, or quantity . . . . (1045b1-5).

Quality and quantity are mentioned here because, since the "what is it?" question can be asked in any category, something has to account for a quality's being one and a quantity's being one, too. For such things are one in number, according to Aristotle and in the way described above, page 50. (See also Met. VII, 9, 1034a35). But only substantial forms are separate, not the "shapes" or characterizing

---

*Met. VIII, 6. Here I depart from Durrant's argument.

universals of which particular qualities and quantities are instances.* A form is "separate," and here again I follow Durrant, in the way that one of Strawson's "sortal universals" is:

> It supplies a principle for distinguishing and counting the particulars it collects; it presupposes no antecedent principle or method of individuating the particulars it collects. In contrast, other types, other types of universal which apply to and collect particulars--Strawson's characterizing universals, Aristotle's μορφή terms, where μορφή is distinguished from εἶδος, and Aristotle's ἰδέας, do not exhibit this feature of separation, for whilst they can, as Strawson says, supply principles of grouping, even counting particulars, they supply such principles for particulars already distinguished or distinguishable in accordance with some other principle or method (pp. 66-67).

Given this as the sense in which a form is separate and a "this," we can now try to make sense of Aristotle's claim that form is predicated of matter. Letting "Ø" do duty for any second substance term, consider a claim of the form

(a) This is Ø.

Aristotle cannot allow that "this" signifies anything in its own right, or his form and (second) substance as that which makes things the things they are would be otiose. (This, by the way, comes out clearly in Met. VII, 1035a7 ff.: "For each thing must be referred to by naming its form, and as having form, but never by naming its material aspect." The Oxford translation is somewhat non-literal here, but does capture the M-thesis spirit of this text). According to the M-thesis, (a) is

---

*Aristotle sometimes seems to forget this; at 1049b1, for example, he says that "both the matter and the accidents are indeterminate." Characterizing universals do not tell us what the thing is of which they are accidents, and so are indeterminate; but saying "white" can tell us what some color is (cf. Topics I, 9), and, in this way, a μορφή makes something (the particular color, λεύκον τι) what it is and one.

elliptical for either

(b) "This Ψ is Φ,"

or

(c) "This Φ is Φ,"

where "Ψ" is also a second substance word. Second substance is said of first substance (Categories, 1a20), not of some amorphous matter. The "said of" relation is not to be confused with "predicated of," where this latter notion is meant to cover cases in which some subject is characterized or described (recall Hampshire's insistence on the difference between "That is a dagger" and "That is yellow," p. 3 above). So (a) has to be understood as (b) or (c). According to Ross and Owens, (a) ought to count as a straightforward case of predication, where the subject is completely amorphous "matter" and the predicate a kind of formal Procrustean bed. But it seems to me that Aristotle speaks of form being predicated of matter in contexts where he is entertaining hypotheses which he does not accept. For example there is the already mentioned passage in Metaphysics III, which reads very much like the second part of the Parmenides. Then there is the passage in Metaphysics VII, 3, where the often repeated claim that everything is predicated of substance, but it of nothing else, is denied. But here the supposition that substance, i. e. form, is predicated of matter is said to lead to an impossible result, viz. that matter is substance. Earlier on in that chapter he speaks of "stripping away" and of "taking away" everything from something except what underlies. What is left is a Lockean something one knows not what. Aristotle says, ". . . if we adopt this point of view it follows that matter is substance" (1a27-29). Anscombe remarks in Three Philosophers that "it would be almost

incredible, if it had not happened, to suppose that anyone could think it an argument to say: the ultimate subject of predication must be something without predicates; or that anyone who supposed this was Aristotle's view could do anything but reject it with contempt (p. 11).* This is the contempt of an M-theorist. A different sort of case from these just discussed occurs in the Physics, where Aristotle labors over the distinction between alteration and genesis.

There Aristotle says that such things that come to be simply (as opposed to coming to be something) "come to be out of underlying things" (190b8-9). To say that a substance comes to be out of its opposite is to violate the injunction of the Categories that no substance has an opposite. Yet again, a substance cannot come from or out of nothing, as Parmenides showed: "generation would be impossible if nothing were already existent" (1033a1). Hence, Aristotle is left, given his three "principles," with the underlying thing.

Now there are said by Aristotle in the Metaphysics to be two senses in which one thing comes from another ("apart from that in which one thing is said to come after another").** He says that one thing can come from another either as a man comes from a child as it develops, or as air comes from water. In the one case the becoming is a perfection. In the other case the coming-to-be of one thing is the destruction of another. The latter is said to be reversible, the former not so. Anscombe notes that in the former case, Aristotle would

---

*Malcolm Schofield has shown that it is not Aristotle's view: "Metaph. Z 3: Some Suggestions," Phronesis XVII, No. 2, 1972, pp. 97-101.

**Met. II, 2, 994a23-b15.

not say that "in every case where a substance A changes into a substance B, it is correct to say that A is the matter of B, or that A [where A is a person] is potentially a corpse" (Three Philosophers, p. 51). If B is (or seems to Aristotle to be) a degeneration from A, then only the matter of A is potentially B. Vinegar is thus wine corrupted, and Anscombe wonders whether Aristotle is not "influenced by a feeling that wine is better than vinegar."

All the same for that, Aristotle does not seem to examine the question, "Out of what did that come?," very carefully. He assumes that it is always appropriate to ask it, and this is how he comes to speak of the "material cause" of things. But that notion makes good sense only in the case of things which are made, as his own examples show.* If, as Charlton claims, following Weiland, Aristotle's doctrine of the four causes "is the immediate result of a survey of how we ordinarily speak" (Aristotle's Physics, p. 99), then Aristotle generalized too hastily from his survey. If I am asked what a cake is made of, I could understand the question as being about the ingredients of the cake. But I would not know what to think if asked what a steak was made of, or what a person is made of. A person has a body, but it is odd to say that he is made of a body on the model of a statue's being made of or from a piece of bronze. Odder still is the idea that a person is made from or out of a part of his mother. In the Metaphysics, Aristotle says that that from which natural things are generated is matter (VII, 6, 1032a15). This is then identified with nature (1032a23-24), which is said to be the possibility for each thing

---

*Physics II, 3, 194b23-26; Met. V, 2.

to be and not to be (1032a22-23). Since form is not created (1033b5) nor is the matter (1033a29), everything that comes to be is composite (1033b12).

The claim that everything which comes to be is composite is not a generalization based on observations and experiments, nor does it seem to be a claim whose denial is a contradiction. It is rather based on arguments which, on the one hand, are meant to keep the Eleatic wolves from the door, and, on the other, considerations related to the view that it is always possible to say what a thing is.

Not only must it be possible to say what a thing is, but it must also be possible to say what it came from. To admit that it is not possible to say what it came from would be tantamount to admitting that it came from nothing.* So Aristotle holds that "the what is the starting point of all generation" (Met. VII, 9, 1034a33-34). Indeed he holds that everything is generated by something, from something, and becomes something. So it must always be possible to say what it is produced by, and, in the case of genesis, some substance must actually pre-exist (Met. VII, 9, 1034b18). In such a case the producer and the produced have the same form but different matter (1037a7-10). Indeed, it is the matter which, in one sense, accounts for the possibility of coming-to-be. For while form never changes, matter can come to have a certain form (1033b9). So, like saying something true, generation is a kind of combination. If it is now true to say that this lump of bronze is round, that it because it is so in the objects (Met. IX, 10). The form has been brought into this particular matter, as Aristotle says at

---

*Cf. Wittgenstein, Philosophical Investigations, par. 52.

Met. VII, 8, 1033b9-10. Just as the ability to say something true presupposes the existence of objects (of speaking) which I combine in speaking, so coming-to-be presupposes the existence of something, viz. that out of which a thing comes to be. And we have seen that this means both the form and the matter.

Now a distinction must be drawn between natural and artificial productions, e.g. between the coming-to-be of a man and the coming-to-be of a bed. I can make a bed by arranging some straw, and there is nothing peculiar about saying that a certain bed is made of straw. But a man is not made out of a body in this sense. That is, there is no body such that at first it is not ensouled and later comes to be ensouled. This is not to deny that there is some sort of combination necessary for the production of a person. It is rather that a person's body is not what he is made of in the way that a machine is made of metal parts. The matter, in the case of the coming-to-be of a natural thing, must be "grasped by analogy," Aristotle says in the Physics (I, 7, 191a7-8): "As bronze stands to a statue, or wood to a bed, or [the matter and] the formless before it acquires a form to anything else which has a definite form, so this stands to a reality, to a this thing here, to what is" (191a9-11). But this is a controversial passage, so before I set out my interpretation of it, I will give some other views an airing.

Charlton summarizes what he takes to be the alternatives as regards the reading of this text:

> This may be understood in two ways. We might take bronze and wood and statues and beds respectively as examples of underlying things and realities. Aristotle will then be saying that 'underlying thing' and 'reality' are just the generic names for things which stand in

> this relation. Or we might think that statues and beds are not realities, and bronze and wood are not underlying things; but an underlying thing is what stands to something which is a reality as wood stands to a bed. I favour the first interpretation, which seems to me to be supported by the parallel passages (cited above, pp. 71-2), 195a16-21 and 1048a35-b4 . . . . Those who think that Aristotle believed in prime matter favour the second interpretation, and say that prime matter stands to realities as wood to a bed, and that its nature must be grasped by analogy because in itself it is wholly indeterminate.*

Charlton argues quite convincingly that "even if Aristotle believed in prime matter . . . it seems impossible that he is introducing it here" (p. 78). He notes that the most sober of the "prime matter" advocates claim that it is only to the simple bodies that prime matter is said to stand as matter, and that it is clear that prime matter is not the stuff of which men and animals consist. He says, ". . . that is either seed or flesh" (p. 79). Again, there is Aristotle's own admonition that the physicist should concentrate on proximate causes and principles. And finally, Charlton rightly points out that "it is incredible that Aristotle should introduce so startling a notion as that of a wholly indeterminate universal substratum in this ambiguous manner, when nothing in the preceding discussion has prepared us for it" (p. 79).

If the alternatives Charlton mentions were the only ones to consider, it would be difficult to disagree. As it is, however, there is another position; so it is regrettable that he offers no argument for his own view, against which one could test the merits of the position I will advocate.

It is my contention, as I have already suggested, that the matter of natural things (i. e. plants and animals; the simple bodies

---

*Charlton, Aristotle's Physics, p. 78.

present special problems) does not stand to that of which it is the matter in exactly the same way as does the matter of artifacts. There is an analogy, but it is only an analogy, as Aristotle says.

Before considering the issue in any detail, I want first to say what prompts the claim that there is yet a third alternative to take into account. In the lines preceding those in which Aristotle mentions the analogy (of course, that he says there is an analogy is not irrelevant here), Aristotle says that he has shown "how many principles there are of natural things" (191a3-4). There is something which underlies, and then there are two opposites, though these can be spoken of as one which is present and absent. Now in the statement of the analogy, he does not mention "natural things": he mentions a statue and a bed. Presumably, it is clear enough what it means to say that bronze is that out of which a statue comes to be, or that a bed is made of wood. And this is clear enough: we can see the craftsman at work on the materials, say, building a statue. But it is different with the things that are due to nature, and Aristotle recognized that such things have to be spoken of separately. At the opening of Book II of the Physics, he says

> Some things are due to nature; for others there are other causes. Of the former sort are animals and their parts, plants, and simple bodies like earth, fire, air, and water--for we say that these and things like them are due to nature. All these things plainly differ from things which are not constituted naturally: each has in itself a source of change and staying unchanged, whether in respect of place, or growth and decay, or alteration (192b9-15).

He then mentions a bed as an example of something not due to nature, something "made by human hands" (191b30) whose "source is in something else and external" (b31). In such cases one can see materials

being manipulated, formed, as it were, by human hands; but one does not see nature's hand in things in this way. So it is not odd to suppose that the matter of a natural object will stand to its form, which Aristotle calls a psyche, in a somewhat different way than does, e.g., the bronze of a statue to its shape. As well, in the Physics passage at issue, notice how Aristotle contrasts (and this is lost in Charlton's translation) being shapeless (ἄμορφον) and having a shape (ἐχόντων μορφήν), on the one hand, and being an underlying thing, on the other, with substance, the this, and what is. It would be very difficult to make a case for saying that the language is not special here.

Thus, while I agree with Charlton that Aristotle is not contrasting the bronze of a statue with the prime matter that comes to be a living thing, I think there is a contrast being made here, and that there is a genuine analogy to be grasped.

As noted above, Durrant points out that, for Aristotle, there is a difference between "form" and "shape." He notices that at "Metaphysics, 1029a31 Aristotle dismisses an account of substance in terms of a combination of 'matter' and μορφή, but that this is not to reject an account of substance in terms of 'matter' plus εἶδος. An account of substance in terms of 'matter' and μορφή is rejected . . . since an account in terms of its matter plus the properties signified by the characterizing universals which hold true of it [see above, p. 125] is unsatisfactory in that such an account cannot tell you what something is" (Durrant, Theology and Intelligibility, p. 63). This line of interpretation is consistent with our Physics passage because, in it, Aristotle compares, in the analogy, having a shape with substance, the this, what is. Shapes are degenerate forms in that the former do not carry

with their presence the power of motion. A bed moves, for example, only because its matter consists of (some of) the simple bodies. Having shown that there is a third alternative which Charlton does not mention, I turn now to the much more difficult task of interpreting Aristotle's analogy.

Giving anything like a full treatment of this passage in the Physics would take a rather long essay in its own right, so I hope I will be excused if what follows is sketchy.* To get at the difference between the matter of artifacts and the matter of natural things, it is useful to look at some passages from De Anima, especially since Anscombe has made some illuminating remarks about one of them.** In the De Anima, Aristotle is trying to make (or to get) clear what it is to say that something is alive or has life. At 412a13 he says that ". . . of natural bodies some have life and some have not: by life we mean the capacity for self sustenance, growth, and decay." Later, at De Anima 412b25, Aristotle says that "that which has the capacity to live is not the body which has lost its soul, but that which possesses its soul . . . ." In this remark Aristotle is not contending that there are independently identifiable bodies, those which have the capacity to live, which then come to have souls and begin to live. A soul is necessarily the soul of some body, just as a living body is the body of some living thing. The soul is the form of a natural body which potentially has

---

*I treat this issue more fully in my MA thesis, "Some Problems about 'Soul' and 'Sense Perception' in Aristotle's De Anima," University of Nebraska, 1968, but there do not consider the Physics text now at hand. See, in particular, pp. 7-37.

**See Three Philosophers, pp. 56-59.

life.* As Hammond has argued, "Soul and body are not distinct things that do or can exist apart. Their separation is only notional. They no more exist apart than do concave and convex."** This is the point of Aristotle's claim that "the soul is a kind of actuality or notion [logos] of that which has the capacity of having a soul" (414a28). There is no single class of bodies such that some of them are alive and others are not; he would have found it odd, and not just macabre, to say, "Some of the bodies in this city are alive, while others are dead." How then is one to understand his remark at 412a13, quoted above? He could be saying that for some types of natural body, e.g. plants, plants live. But to say that plants live is not to make a claim like, "Some plants bear fruit." That is, knowing that something is a plant, one is not then in the position to wonder whether it is the sort of thing that lives. If having life were something on the order of having three leaves, how could life be analyzed as that on account of which self-sustenance, growth, and decay is possible?

Self sustenance, growth, and decay cannot be said to be effects of life because, if this were true, then the connection between having life and being self sustaining would be, as Aristotle might say, merely accidental. But it is clearly Aristotle's view that it is no mere contingency that something which grows is alive. We might, therefore, understand the passage in question (De Anima 412a13-15) not as

---

*This is Aristotle's own account of what the soul is; see De Anima 412a20.

**W. A. Hammond, Aristotle's Psychology: A Treatise on the Principles of Life (New York: The MacMillan Co., 1902), p. xxii.

expressing a causal connection between having life and, e.g., growing, but as expressing the point that if we are to talk of a body's growing, etc., such talk is appropriate only if it is granted that the body in question be of a type having life. This interpretation makes sense of the idea that to be ensouled is to be alive, to have a certain power, as Aristotle says in the Physics.

When we say that a body is alive, has a soul, Aristotle thinks that "one need no more ask whether body and soul are one than whether the wax and the impression it receives are one, or in general whether the matter of each thing is the same as that of which it is the matter . . . ." (412b6-8). It is this point which Aristotle hopes to make clear by imagining that an artifact has a soul, and here we can see the point of the distinction drawn in the Physics.

The example of the axe goes as follows:

> Suppose that an implement, e.g. an axe, were a natural body; the substance of the axe would be that which makes it an axe, and this would be its soul; suppose this removed, and it would no longer be an axe, except equivocally. As it is, it remains an axe, because it is not of this kind of body that the soul is the essence or formula, but only of a certain kind of body which has its own principle of movement and rest.

First of all it is important to note that the example is hypothetical; we are to suppose that an axe be a body of the sort that is ensouled, which it is not. If we take away its "axeity," i.e. the what-it-is-to-be a body of this special sort, it would then be an axe in name only. But since an axe is not ensouled, destroying its capacity to function as an axe does not have this serious consequence. The "formal cause" of the axe is not the same as its "final cause." We can identify it as an axe in virtue of its appearance, the arrangement of its parts, its "shape." That is

to say, we can identify the matter, or "body" of an axe in a way that is not possible in the case of a plant or animal. The axe that does not function as an axe remains the same pieces of steel and wood that go together to constitute the functional axe. But the body that loses its soul does not remain the same at all, except equivocally. This point is more clearly brought out in Aristotle's example about an eye.

Again, we are given a hypothetical case:

> If the eye were a living creature, its soul would be its vision . . . . But the eye is the matter of vision, and if vision fails there is no eye, except in an equivocal sense, as for instance a stone or painted eye (412b18-22).

The relation between the eye and vision is not the same as the relation between the soul and the body, unless we suppose that the soul is a living creature. For when we say that a blind man has eyes, we are not speaking equivocally. We can still identify the man's eyes, even though he is not sighted, in virtue of the fact that they remain, for all appearances, organs of a living creature, visually impaired though he may be. If we pluck his eyes out, or if the man is killed, then the eyes are no longer parts of a man, except equivocally, "as for instance a stone or a painted eye." Miss Anscombe elucidates the point of the example as follows:

> The reason why it is absurd, to imagine the final determination which makes the eye an eye, namely its sight, as occurring in a separated eye, is that seeing is part of the life of the animal whose eye it is. This, then, will be why, consciously supposing an absurdity, Aristotle says 'if the eye could exist separately'.*

Aristotle then goes on to say, after using these two illustrations, that "it is quite clear, then, that neither the soul nor certain parts of it, if

---

*Three Philosophers, pp. 57-58.

it has parts, can be separated from the body . . . . (413a4-6).*

It is, therefore, clear that the matter of an axe and a bed stands to the "shape" of such things in a way only analogous to the way the "form" of a natural body stands to its matter. But then it is a pity that Aristotle speaks in practically the same breath of the form's presence and absence accounting for substantial change, as if the soul were a kind of subtle body or a ghost in a machine. But it is even worse to speak of a form having a contrary. Though one might say that life is the opposite of death (say, in a children's game), it is worse than unhelpful to say that life and death are opposed.

Criticism of Aristotle's Account

Earlier I argued that Aristotle confuses a-expressions and o-expressions; now it can be seen how serious a charge that is. For among a-expressions there are expressions for living things, e. g. "man" and "horse." Men and horses would be paradigms of things having forms. O-expressions, on the other hand, would not be expressions for living things, nor, it would seem, for those individual and numerically one* things which are present in a subject. But they play a central role in talk about change, e. g. "This is much taller today." What is it, then, by its presence and absence, that could account for something's

---

*For a criticism of Wiggins' view of these issues, which Charlton follows, see J. L. Ackrill, "Aristotle's Definition of Psyche," Proceedings of the Aristotelian Society, LXXIII (London: Methuen and Co., 1973), pp. 119-134.

**I use this jargon because it is Aristotle's. But I agree with Anscombe (Three Philosophers, p. 46) that "numerically one" is a bad label, and with Durrant ("Numerical Identity") that "same in number" is a useless and misleading phrase.

being taller today? Certainly not tallness; the Philebus shows that that is not some definite quantity. But Aristotle will have to say that some definite height, say one inch, accounts for this difference. But this is again to confuse a-expressions and o-expressions.* We would say, perhaps, that the thing's having grown accounts for the difference, but that would not be the sort of answer that is relevant here. Aristotle's question is rather like this: "What is it, by its existence, by its having come to be, which accounts for this change?" It is not the existence of the thing which is taller that accounts for its being taller. It is rather, we must say, its coming to be of a certain height which makes it taller. One height, the height that it was, has departed, and a new height has come to be inherent in the thing.

Besides the objections that Owen raises against this way of talking, by way of arguing that Aristotle could not hold a position so patently full of difficulties,** this kind of account opens the door to an objection to the claim that a thing has changed when it becomes taller. But before considering that objection, I first want to close the door on one approach to breaking down the distinction between a- and o-expressions, since that distinction is central here.

It was argued earlier that the distinction between a- and o-expressions has its roots firmly planted in Aristotle's Categories, particularly in those places where he says that substances do not admit of a more and a less, while opposites do. The objection, then,

---

*See De Anima III, 6, 430b20 where "every division" is said to be made known as privation is.

**"Inherence," passim.

is that there are examples which run counter to the distinction, i. e. that some a-expressions take comparative and superlative forms. For example, consider the names of colors. We do say that the grass is greener on the other side of the fence and that it is greenest in Farmer Brown's meadow. We also say that we would like our toast to be browner. It would seem, from such remarks, that there are some things, the expressions for which are a-expressions, that "admit of a more and a less." There is no denying that we do make such remarks as these; the distinction in question, however, is not so much a grammatical one as one that takes clues from grammar. What is important is what we mean when we make such remarks.

When we say that the grass is greener on the other side of the fence, we may mean either that the grass there is of a darker shade of green or that more of the grass is green over there (as opposed to being yellow, for example) than it is on this side.* The same sort of account will cover the example about toast as well. Excepting borderline cases, grass is either green or it isn't. And regarding borderline cases, we say that this is more clearly or nearly a than something else, not that it is a-er than something else. For example, we say that someone is more nearly six feet tall than another, not that he is "six feeter" than someone else. So the counter-examples are only apparent.

Suppose, then, that someone is taller this year than he was last year. It is certainly possible to understand saying that someone is taller than he was, without introducing a-expressions into the

---

*I am supposing that someone is speaking literally.

account of what it means to say this. In this sense, then, o-expressions are "proto-words," to be replaced in favor of a-expressions when it comes to saying by how much someone has grown in height. Saying how much someone has grown presupposes some conventional system of measuring height. Then words like "exactly" and "same" come into play. This is not to say that a-expressions displace or replace proto-words (o-expressions), nor is it to say that proto-words are inexact a-expressions, e.g., that saying something is heavy is an inexact way of saying it is two tons in weight. It is rather to say something about the way a language or "language game" might develop.

It is wrongheaded, therefore, to try to explain all change in terms of the presence and absence of something the expression for which is normally uttered in saying what something is, i.e, an a-expression. For there are many cases of change in which what a thing is does not change at all. That Aristotle makes this confusion is evident not only from his having said that change involves the presence and absence of a form (or that it involves contraries), but also from his having said that ". . . everything that comes to be comes to be . . . from something and comes to be something."* While this is put in the indicative it is clear that "something" (tinos, ti) is meant to answer "What is it?" in the interrogative. Here is where the intersection of Aristotle's account of change and the M-thesis is most essential. For, again, there is the form answering, on the side of nature, to the "What is it?" question on the side of language. Thus, the claim that change involves the presence and absence of a form is just another way

---

*Met. VII, 7, 1032a11-12. See also Met. VII, 8, 1033a 24-25.

of putting the point that everything comes to be from something and comes to be something. It is then apparent what is the correct diagnosis of the affliction whose symptom is the confusion of two types of expression. This confusion results from the assumption that we can say, not only of a man who is placed before us, what he is, but also, e.g., of a color that is put before us, what it is.* And there is no mitigation of this difficulty from the salve that the "What is it?" question arises primarily in the case of substance; the "What is it?" question is nevertheless thought to be appropriate in all cases, and Aristotle's account of change is meant as an account of all cases of change.**

I want to consider now the objection I promised above. This objection is meant to show that Aristotle's account makes both alteration and genesis impossible, given that whatever changes, changes from something into something. Suppose that some essential unity, e, is thought to have changed. By "an essential unity" is meant "some one thing, e, whose what-it-is is specified by what is said of it kath hauto."*** Let e be thought to undergo substantial change. The form of e cannot change,**** so what e is cannot change. But if what e is cannot change, then e will always be what it is. In other words, if to be what e is, is what it is for e to be (exist), then it is necessary for

---

*Topics I, 9, 103b29-37. See the comparison at Met. X, 9, 1058a35-b5.

**Physics I, 7, 191a5-7; II, 3, 195a11-14; Met. V, 11, 1013b15; VII, 7, 1032b4. This would also explain the reductionism of, e.g., Met. X, 4, 1055b12-18.

***Met. V, 6, 1016a33-b7.

****Met. VII, 7, 1033b5 ff.

e to be what it is. So e cannot change.* There can thus be no substantial change. Suppose, however, that something is an accidental unity,** say, a board which is long. Call it bl. Suppose, then, that it is shortened, such that it no longer is as long as it was, and that this is thought to account for its having changed. Since everything that changes, changes from something, let us call what the change was from "bl." That is to say, a board of a certain length (specifiable by an a-expression) becomes something else, viz., a board of another length. Since the length of the board, specifiable by an a-expression, cannot change (since what a thing is cannot change), the change must be accounted for in some other way. But bl, i.e., what the accidental unity is, cannot change either, since this is what the accidental unity is. If this changed, then there would be nothing, about which one could say, "This changed." So there can be no accidental change.

This objection clearly has the odor of sophistry about it, and it is not difficult to sniff out the source of the trouble. Aristotle, however, is guilty of oversimplification, so the difference between the weaker and stronger argument will not be so quickly discovered. I have suggested that the oversimplication which mars his account of change and blurs the distinction between a- and o-expressions is Aristotle's wholesale acceptance of the M-thesis. This is not to say the

---

Robin Attfield, in "How Things Exist: A Difficulty," raises a similar problem regarding Owen's defense of Aristotle's account of the "is" of existence: "How then would Owen wish us to construe the assertion that a particular man is no longer in existence? For a man not still to be* would be for him not still to be what it is to be a living man. But which individual is here referred to by the pronoun 'him'? Not, it would seem, a man; and no other sortal classification has been supplied" (p. 141).

**Met. V, 6, 1015b16-35.

M-thesis, or some parts of it, is without value, and I would like to bring it back into view for a final examination. I want to focus on its concern with the "What is it?" question.

There is no doubt that the M-thesis ought to be considered as therapy for views which suppose that the identity of an object is somehow due to its position in time and space, e.g. Strawson and Quinton, but it is only a palliative, because the difficulty is not in the solution but in the question itself. There is something wrong with a thesis whose purpose it is to answer the question, "What makes a thing the thing that it is?" In Aristotle, this question becomes, "What makes a thing one, or a unity?," and the inevitable answer is that its form does, because that is one of the purposes for which they were invented. Of course, one is then in a position to be asked whether and how the forms themselves are unified, and this is not a task which Aristotle ignores. At Met. VIII, 6, 1045b1 ff., Aristotle says that

> . . . of the things which have no matter . . . each is by its nature essentially a kind of unity, as it is essentially a kind of being--individual substance, quantity, or quality. And so neither 'existent' nor 'one' is present in definitions, and an essence is by its very nature a kind of unity as it is a kind of being. This is why none of these has any reason outside itself for being one, nor for being a kind of being; for each is by its nature a kind of being and a kind of unity . . . .

The idea that there is something which everything is, though, is not always employed for something's being one thing. It is sometimes said that expressions for what things are, general terms, are distinguishable as substantival and adjectival. Geach, for example, notes that "Aquinas . . . mentions the grammatical fact that, in Latin, substantives have (singular and plural) numbers on their own account,

whereas adjectives have a number determined by the nouns they qualify . . . ."* Grammar is but a rough guide, though, and what is thought to be central by Geach is whether or not a general term supplies a criterion of identity or not:

> I maintain that it makes no sense to judge whether x and y are 'the same,' or whether x remains 'the same,' unless we add or understand some general term--"the same F." That in accordance with which we thus judge as to the identity, I call a criterion of identity; this agrees with the etymology of "criterion." Frege sees clearly that "one" cannot significantly stand as a predicate of objects unless it is (at least understood as) attached to a general term; I am surprised he did not see that the like holds for the closely allied expression "the same." "The same F" does not express a possible way of judging as to identity for all interpretations of "F." I shall call "substantival" a general term for which "the same" does give a criterion of identity. Countability is a sufficient condition for considering a term as substantival . . . .**

Durrant makes a similar point when, in his critique of Locke's notion that bodies are the proper subjects of numerical identity, he says that "there cannot possibly be such entities precisely because we have no possible means of counting them. Yet of any set of entities we claim to exist there is always the question of how many there are. Granted then that numerical identity has bodies as its subject matter, numerical identity is impossible."***

Durrant is surely right against Locke, showing that Locke's idea of a body is such that one can never tell what is to count as one of them, nor how many such things there are. A similar objection might be raised against the early Wittgenstein's "objects." But

---

*Reference and Generality, p. 39.

**Ibid.

***"Numerical Identity," p. 99.

Durrant, like Geach, is doing more than giving an excellent criticism of another philosopher. Each has a positive view to put forth, and it is these to which my criticism will be addressed. I will be concerned with the view that "particulars must be particulars under some classification"* and that claims of the form "x is the same as y" are incomplete.**

While I think these points are useful against philosophers who either maintain or suppose that there are "bare particulars,"*** I do not underwrite putting forth such views as very general, a priori truths. Taken in a broad sense, they make impossible certain situations which do occur. They are sound as applied against certain positions because, in such contexts, where non-philosophical activities and interests play little or no role, one can make no appeal to such activities and interests to make sense of the utterance of an expression like "red thing." The danger in criticizing is just that one will generalize his critical apparatus into a philosophical theory: "When we do philosophy we are like savages, primitive people, who hear the expressions of civilized men, put a false interpretation on them, and then draw the queerest conclusions from it."****

Consider the following story, then, as an instance of

---

*Ibid., p. 102.

**I take this to be a brief way of stating Geach's point about "the same."

***See Edwin B. Allaire, "Bare Particulars," Universals and Particulars, ed. Michael J. Loux (Garden City, New Jersey: Doubleday and Co., 1970), pp. 235-244.

****Wittgenstein, Philosophical Investigations, par. 194.

civilized men whose words are made to seem queer by the philosophers' theories. Suppose that I have something in my hand. I call attention to it by holding out my hand toward you, saying "Look at this!" We are in a small boat, earnest fishermen after our dinner, and I have several times called your attention to things I have pulled out of the water. (I am simply earnest while you are both earnest and wise to the ways of the sea). You tell me that I have a sculpin ("Ugly but good to eat") or a sea cucumber ("Throw it back") or a starry flounder ("Into the sack"). But now you say, "I've no idea what that is." I ask you whether it is a plant or an animal, for like Wiggins, I think that "What is it?" must have an answer: ". . . since everything is something, this is a question to which there must be some answer, known or unknown, if there is indeed such a thing . . . ."* But you cannot tell me what it is, so, showing great faith in your piscatorial wisdom (thinking it is a fish), I say that it must be very unusual to hook such a thing. We put it into a separate sack.

Durrant, and I think Geach as well, would agree that "everything must be something," yet to be a thing in a sack is not to be something. To be something, in Durrant's sense, is to be under some classification, the expression for which is a substantival term, e.g. "fish" or "plant," so he would take it to be necessary that everything is under some such classification.** A way, therefore, of

---

*Identity and Spatio-Temporal Continuity, p. 27. See p. 42 for an instance of criticism of the sort in question turned theory: "My essentialism simply derives from a willingness to pay more than lip service to the idea that we cannot single out bare space-occupying matter" (my emphasis).

**"Numerical Identity," p. 98; Reference and Generality, p. 153.

understanding my question about the thing I hauled up out of the sea, is this: "Under what classification is this?"

Now is one to say that what I have pulled aboard must be under some classification? Perhaps it is, but no one knows under what classification it is. Wiggins says that the "What is it?" question must have an answer, known or unknown. This suggests that we can speak of the answer, as we can speak of the classification, even when we have good reason to think that no one can answer the question. Is a classification, then, like a comet awaiting its Kahoutek?

Suppose, when we arrive at the dock with our mysterious find in the sack, that the customs authorities are searching all boats for smuggled narcotics. They search our craft. One of them picks up the sack, asking "What is in this?" Should I say that I don't know? I could say it is something we caught, a much less provocative answer under the circumstances, and one that would no doubt satisfy the inspector. It is not likely that he would ask, "Under what classification is this?," but one might hear something of that in the "what is it?" question as raised by a customs inspector.

Suppose, again, that we take our sack to the University where its contents can be examined by a zoologist. "You can surely tell us what it is," I say, hopefully. But he cannot. No one can. No one knows what it is.

This is not an unfamiliar story. An even more familiar one goes like this. "Is that a cup?," he asked. "No, it isn't," was the reply. The M-thesis disallows the first story, and is revisionist about the second. It should go like this: "Is that a cup?," he asked. "No, that ashtray is not a cup," he replied. The M-thesis makes a

civilized men whose words are made to seem queer by the philosophers' theories. Suppose that I have something in my hand. I call attention to it by holding out my hand toward you, saying "Look at this!" We are in a small boat, earnest fishermen after our dinner, and I have several times called your attention to things I have pulled out of the water. (I am simply earnest while you are both earnest and wise to the ways of the sea). You tell me that I have a sculpin ("Ugly but good to eat") or a sea cucumber ("Throw it back") or a starry flounder ("Into the sack"). But now you say, "I've no idea what that is." I ask you whether it is a plant or an animal, for like Wiggins, I think that "What is it?" must have an answer: ". . . since everything is something, this is a question to which there must be some answer, known or unknown, if there is indeed such a thing . . . ."* But you cannot tell me what it is, so, showing great faith in your piscatorial wisdom (thinking it is a fish), I say that it must be very unusual to hook such a thing. We put it into a separate sack.

Durrant, and I think Geach as well, would agree that "everything must be something," yet to be a thing in a sack is not to be something. To be something, in Durrant's sense, is to be under some classification, the expression for which is a substantival term, e. g. "fish" or "plant," so he would take it to be necessary that everything is under some such classification.** A way, therefore, of

---

*Identity and Spatio-Temporal Continuity, p. 27. See p. 42 for an instance of criticism of the sort in question turned theory: "My essentialism simply derives from a willingness to pay more than lip service to the idea that we cannot single out bare space-occupying matter" (my emphasis).

**"Numerical Identity," p. 98; Reference and Generality, p. 153.

understanding my question about the thing I hauled up out of the sea, is this: "Under what classification is this?"

Now is one to say that what I have pulled aboard must be under some classification? Perhaps it is, but no one knows under what classification it is. Wiggins says that the "What is it?" question must have an answer, known or unknown. This suggests that we can speak of the answer, as we can speak of the classification, even when we have good reason to think that no one can answer the question. Is a classification, then, like a comet awaiting its Kahoutek?

Suppose, when we arrive at the dock with our mysterious find in the sack, that the customs authorities are searching all boats for smuggled narcotics. They search our craft. One of them picks up the sack, asking "What is in this?" Should I say that I don't know? I could say it is something we caught, a much less provocative answer under the circumstances, and one that would no doubt satisfy the inspector. It is not likely that he would ask, "Under what classification is this?," but one might hear something of that in the "what is it?" question as raised by a customs inspector.

Suppose, again, that we take our sack to the University where its contents can be examined by a zoologist. "You can surely tell us what it is," I say, hopefully. But he cannot. No one can. No one knows what it is.

This is not an unfamiliar story. An even more familiar one goes like this. "Is that a cup?," he asked. "No, it isn't," was the reply. The M-thesis disallows the first story, and is revisionist about the second. It should go like this: "Is that a cup?," he asked. "No, that ashtray is not a cup," he replied. The M-thesis makes a

simple case of misidentification into something like the error Socrates thought was the greatest of all--thinking that one thing is another. But surely the first case is plausible, and Socrates is right about the second one:

> Now search your memory and see if you have ever said to yourself, 'Certainly, what is beautiful is ugly,' or 'What is unjust is just.' To put it generally, consider if you have ever set about convincing yourself that any one thing is certainly another thing, or whether, on the contrary, you have never, even in a dream, gone so far as to say to yourself that odd numbers are even, or anything of that sort.*

---

*Plato, Theaetetus, Collected Dialogues, 190b-c.

LIST OF WORKS CITED

Aristotle. Aristotle's Categories and De Interpretatione, Trans. with notes by J. L. Ackrill. (Clarendon Aristotle Series), Oxford: The Clarendon Press, 1963.

_____. Aristotle's De Anima: Books II and III, Trans. with notes by D. W. Hamyln. (Clarendon Aristotle Series), Oxford: The Clarendon Press, 1968.

_____. Aristotle's Metaphysics: Books Γ, Δ, and E, Trans. with notes by Christopher Kirwan. (Clarendon Aristotle Series), Oxford: The Clarendon Press, 1971.

_____. Aristotle's Physics: Books I and II, Trans. with an introduction and notes by W. Charlton. (Clarendon Aristotle Series), Oxford: The Clarendon Press, 1970.

_____. The Categories, On Interpretation, Tran. Harold P. Cook, Prior Analytics, trans. Hugh Tredennick. Cambridge, Mass.: Harvard University Press, 1938.

_____. The Works of Aristotle, in XII vol, Trans. under the editorship of W. D. Ross. Oxford: The Clarendon Press, 1928.

Ackrill, J. L. "Aristotle's Definition of Psuche." Proceedings of the Aristotelian Society, LXXIII. London: Methuen and Co., 1973, pp. 119-133.

Allaire, Edwin B. "Bare Particulars." Universals and Particulars, ed. Michael J. Loux. Garden City, New Jersey: Doubleday and Co., 1970, pp. 235-244.

Anscombe, G. E. M., and Geach, P. T. Three Philosophers. Oxford: Basil Blackwell, 1961.

Attfield, Robin. "How Things Exist: A Difficulty." Analysis, 33, No. 4 (1973), pp. 141-143.

Ayer, A. J. The Problem of Knowledge. London: Macmillan and Co., 1956.

Bosley, Richard, ed. "Universals." Unpublished MS, University of Alberta, Canada, 1973.

Chappell, V. C. "Sameness and Change." Philosophical Review, LXIX (1960), pp. 351-362.

_____. "Stuff and Things." Proceedings of the Aristotelian Society, LXXI. London: Methuen and Co., 1970, pp. 61-76.

Cherniss, Harold. Aristotle's Criticism of Presocratic Philosophy. Baltimore: Johns Hopkins Press, 1935.

Durrant, Michael. "Numerical Identity." Mind, LXXXII, No. 325 (1973), pp. 95-103.

_____. Theology and Intelligibility. London: Routledge and Kegan Paul, 1973.

Elders, Leo. Aristotle's Theory of the One: A Commentary on Book X of the Metaphysics. Assen: Van Gorcum and Co., 1960.

Engmann, J. "Aristotle's Distinction Between Substance and Universal." Phronesis, XVIII, No. 2 (1973), pp. 139-155.

Gale, Richard. "Indexical Signs, Egocentric Particulars, and Token-Reflexive Words." Encyclopedia of Philosophy. Ed. Paul Edwards. New York: The Macmillan Co., and The Free Press, 1967, Vol. IV, pp. 151-155.

Geach, Peter Thomas. "An Irrelevance of Omnipotence." Philosophy, 48, No. 186 (1973), pp. 7-20.

_____. Reference and Generality: An Examination of Some Medieval and Modern Theories. Emended ed. Ithaca, New York: Cornell University Press, 1962.

Gershenson, D. E., and Greenberg, D. A. "Aristotle Confronts the Eleatics: Two Arguments on the One." Phronesis, VII (1962), pp. 137-151.

Hammond, W. A. Aristotle's Psychology: A Treatise on the Principles of Life. New York: The Macmillan Co., 1902.

Hampshire, Stuart. "Identification and Existence." Contemporary British Philosophy. New York: The Macmillan Co., 1956, pp. 189-207.

Hume, David. A Treatise of Human Nature. Ed. by L. A. Selby-Bigge. 2nd. ed. Oxford: The Clarendon Press, 1896.

Jones, J. R. "Are the Qualities of Particular Things Universal or Particular?" Philosophical Review, LVIII (1949), pp. 152-170.

Kirk, G. S. "Sense and Common Sense in Philosophy." Journal of Hellenic Studies, LXXXI (1961), pp. 105-117.

Kneale, William, and Martha. The Development of Logic. Oxford: The Clarendon Press, 1962.

Kosman, L. Aryeh. "Aristotle's Definition of Motion." Phronesis, XIV, No. 1 (1969), pp. 40-62.

_____. "Aristotle's First Predicament." Review of Metaphysics, 20 (March 1967), pp. 483-506.

Lloyd, G. E. R. Early Greek Science. New York: W. W. Norton and Co., 1970.

Moravcsik, J. M. E. "Being and Meaning in the Sophist." Acta Philosophica Fennica, Fasc. XIV (1962), pp. 23-78.

Owen, G. E. L. "Aristotle on the Snares of Ontology." New Essays on Plato and Aristotle. Ed. Renford Bambrough. London: Routledge and Kegan Paul, 1965, pp. 69-96.

_____. "Inherence." Phronesis, X, No. 1 (1965), pp. 97-105.

_____. "The Platonism of Aristotle." Proceedings of the British Academy, LI. London: Oxford University Press, 1965, pp. 125-150.

_____. "Tithenai ta Phainomena." Aristotle: A Collection of Critical Essays. Ed. J. M. E. Moravcsik. Garden City, New York: Anchor Books, 1967, pp. 167-190.

Owens, Joseph. The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Medieval Thought. 2nd ed. Toronto: Pontifical Institute of Mediaeval Studies, 1951; rev., 1963.

_____. "Matter and Predication in Aristotle." The Concept of Matter in Greek and Medieval Philosophy. Ed. Ernan McMullin. Notre Dame: University of Notre Dame Press, 1963, pp. 79-93.

Plato. Collected Dialogues of Plato: Including the Letters. Eds. Edith Hamilton and Huntington Cairns. Princeton, New Jersey: Princeton University Press, 1963.

Quinton, Anthony. The Nature of Things. London: Routledge and Kegan Paul, 1973.

Ross, W. D. (Sir David). Aristotle. 5th ed. London: Methuen and Co., 1923; rev., 1949.

_____. Aristotle's Metaphysics. Oxford: Oxford University Press, 1924.

_____. Aristotle's Physics: A Revised Text with Introduction and Commentary. Oxford: The Clarendon Press, 1936.

Schofield, Malcolm. "Metaph. Z 3: Some Suggestions." Phronesis, XVII, No. 2 (1972), pp. 97-101.

Solmsen, Friedrich. Aristotle's System of the Physical World: A Comparison with His Predecessors. Ithaca, New York: Cornell University Press, 1960.

Spangler, G. A. "Some Problems about 'Soul' and 'Sense Perception' in Aristotle's De Anima." Unpublished MA thesis, University of Nebraska, 1968.

Sprague, Rosamond K. "The Four Causes: Aristotle's Exposition and Ours." The Monist, 52, No. 2 (1968), pp. 298-300.

Strawson, P. F. Individuals: An Essay in Descriptive Metaphysics. London: Methuen and Co., 1959.

Trumbo, Dalton. Johnny Got His Gun. Philadelphia: J. B. Lippencott, 1939.

Vlastos, G. "Reasons and Causes in the Phaedo." Plato I: Metaphysics and Epistemology. New York: Anchor Books, 1970, pp. 132-166.

Wiggins, David. Identity and Spatio-Temporal Continuity. Oxford: Basil Blackwell, 1971.

Wittgenstein, Ludwig. Philosophical Investigations. 2nd ed. Trans. G. E. M. Anscombe. London: Basil Blackwell and Mott, 1958; rpt., 1963.